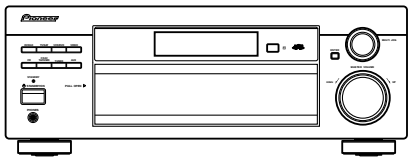
Pioneer *sound.vision.soul*

Service Manual



VSX-D912-K

ORDER NO.
RRV2732

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D912-K
VSX-D812-K
VSX-D812-S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
VSX-D912-K	KUXJICA	AC120V	
VSX-D812-K	KUXJICA	AC120V	
VSX-D812-S	KUXJICA	AC120V	

For details, refer to "Important symbols for good services".

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ⓒ**PIONEER CORPORATION 2003**

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SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

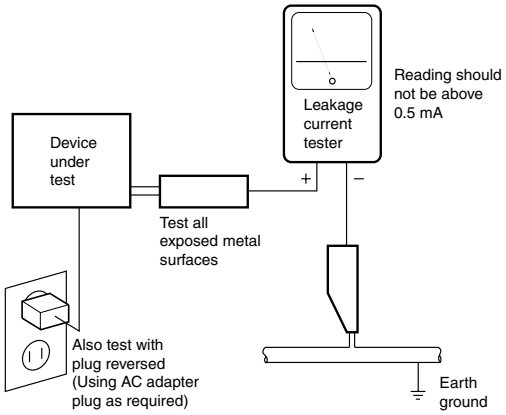
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

Amplifier section

Continuous average power output of 110 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.2 %** total harmonic distortion (front).

Continuous power output (stereo)
Front . . . . . 110 W per channel
(20–20,000 Hz, THD 0.2 %, 8Ω)

Continuous power output (surround)
Front . . . . . 110 W per channel
(1kHz, 1.0 %, 8Ω)
Center. . . . . 110 W (1kHz, 1.0 %, 8 Ω)
Surround . . . . . 110 W per channel
(1kHz, 1.0 %, 8Ω)
Surround Back . . . . . 110 W per channel
(1kHz, 1.0 %, 8Ω)

Input (Sensitivity/Impedance)
CD, VCR/DVR, CD-R/TAPE/MD,
DVD/LD, TV/SAT. . . . . 200 mV/47 kΩ

Frequency response
CD, VCR/DVR, CD-R/TAPE/MD, DVD/LD,
TV/SAT . . . . . 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)
VCR/DVR REC, CD-R/TAPE/
MD REC . . . . . .200 mV/2.2 kΩ

Tone control
Bass . . . . . .± 6 dB (100 Hz)
Treble . . . . . .± 6 dB (10 kHz)
Loudness . . . . . +10 dB/+5 dB (100 Hz/10 kHz)
(at volume level -60 dB)
. . . . . +6.5 dB/+3 dB (100 Hz/10 kHz)
(at volume level -50 dB)

Signal-to-Noise Ratio
(IHF, short circuited, A network)
CD, VCR/DVR, CD-R/TAPE/MD,
DVD/LD, TV/SAT. . . . . 96 dB

Signal-to Noise Ratio
[EIA, at 1 W (1 kHz)]
CD, VCR/DVR, CD-R/TAPE/MD,
DVD/LD, TV/SAT . . . . . .79 dB

Video Section

Input (Sensitivity/Impedance)
VCR/DVR, DVD/LD, TV/SAT. . . . . .1 Vp-p/75 Ω

Output (Level/Impedance)
VCR/DVR, MONITOR OUT. . . . . .1 Vp-p/75 Ω

Frequency response
VCR/DVR, DVD/LD,
TV/SAT ⇨ MONITOR . . . . .5 Hz to 7 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio . . . . . .55 dB

Component video section

Input (Sensitivity)
DVD/LD, TV/SAT . . . . . .1 Vp-p/75 Ω

Output (Level/Impedance)
MONITOR OUT . . . . . .1 Vp-p/75 Ω

Frequency response
DVD/LD,
TV/SAT ⇨ MONITOR . . . .5 Hz to 40 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio . . . . . .55 dB

FM Tuner Section

Frequency Range . . . . . .87.5 MHz to 108 MHz
Usable Sensitivity. . . . . Mono:13.2 dBf, IHF
(1.3 µV/ 75Ω)
50 dB Quieting Sensitivity . . . . . Mono: 20.2 dB
. . . . . .Stereo: 38.6 dBf
Signal-to-Noise Ratio . . . . . .Mono: 73 dB
(at 85 dBf)
Stereo: 70 dB (at 85 dBf)
Distortion. . . . . Stereo: 0.5 % (1 kHz)
Alternate Channel Selectivity . . . . . .60 dB
(400 kHz)

Stereo Separation. . . . . 40 dB (1 kHz)
Frequency Response . . . . . .30 Hz to 15 kHz (±1 dB)
Antenna Input (DIN). . . . . 75 Ω unbalanced

AM Tuner Section

Frequency Range . . . . . 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) . . . . . .350 µV/m
Selectivity . . . . . .25 dB
Signal-to-Noise Ratio . . . . . .50 dB
Antenna. . . . . Loop antenna

Miscellaneous

Power Requirements . . . . . .AC 120 V, 60Hz
Power Consumption. . . . . 300W, 420 VA
In Standby . . . . . .0.5 W
AC Outlet. . . . . .100 W MAX. (SWITCHED)
Dimensions. . . 420 (W) x 158 (H) x 401 (D) mm
(16-9/16 (W) x 6-4/16 (H) x 15-6/16 (D) in.)
Weight (without package) . . . . 10.5 kg (23.1 lb)

Furnished Parts

AM loop antenna 1
FM wire antenna 1
AA/LR6 dry cell batteries. 2
Remote control 1
Microphone (VSX-D912 only) 1
Microphone stand (VSX-D912 only) 1
These operating instructions. 1

Note

- Specifications and the design are subject to possible modifications without notice, due to improvements.

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.
** Measured by Audio Spectrum Analyzer.

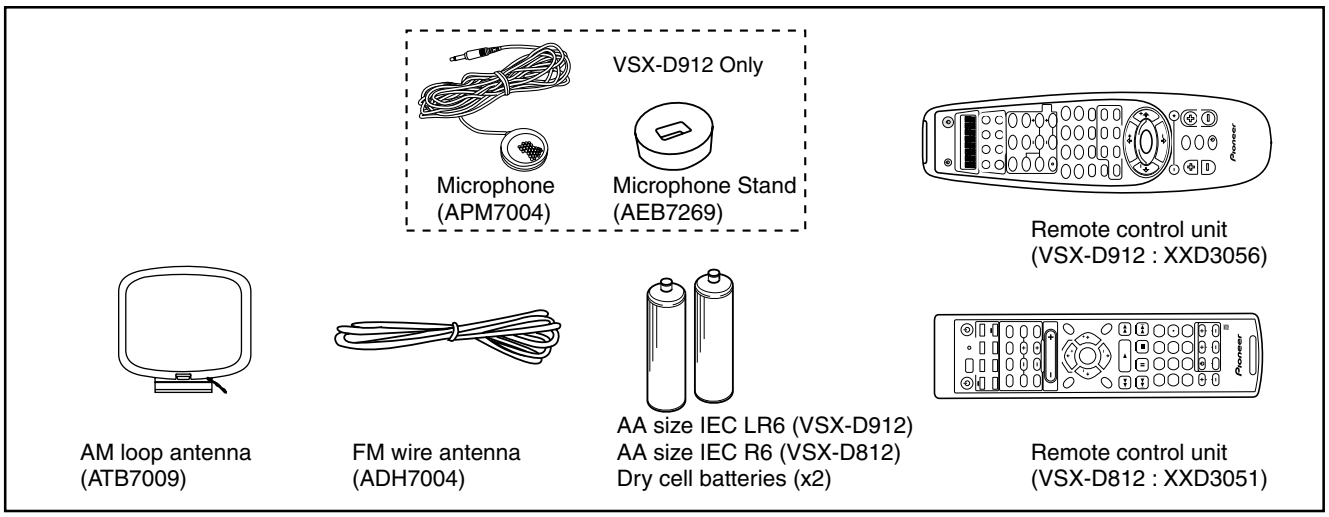
Cleaning the unit

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surface is dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleansers.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surface.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", "Surround EX", and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" ,"DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.

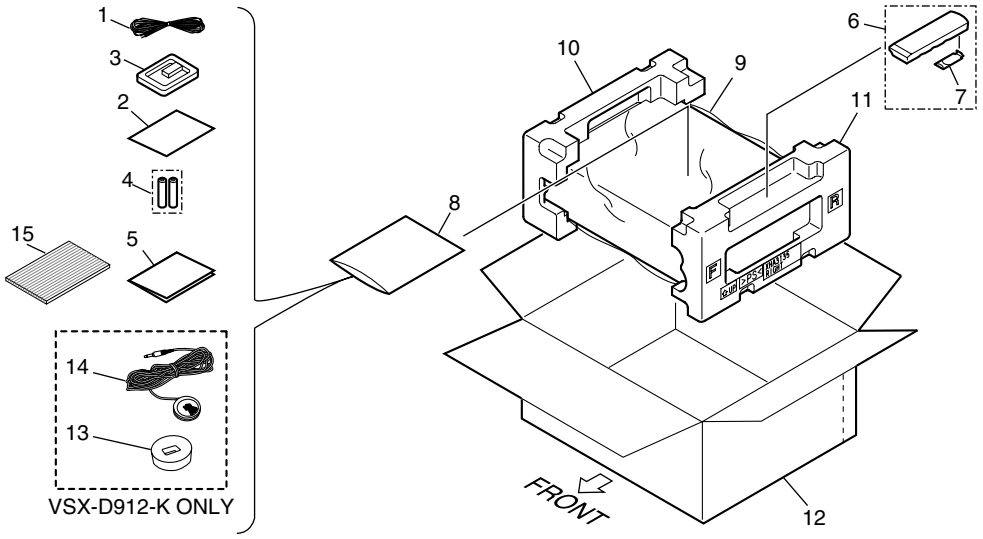
Accessories


VSX-D912 Only
Microphone (APM7004)
Microphone Stand (AEB7269)
Remote control unit (VSX-D912 : XXD3056)
AM loop antenna (ATB7009)
FM wire antenna (ADH7004)
AA size IEC LR6 (VSX-D912)
AA size IEC R6 (VSX-D812)
Dry cell batteries (x2)
Remote control unit (VSX-D812 : XXD3051)

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING



PACKING parts List

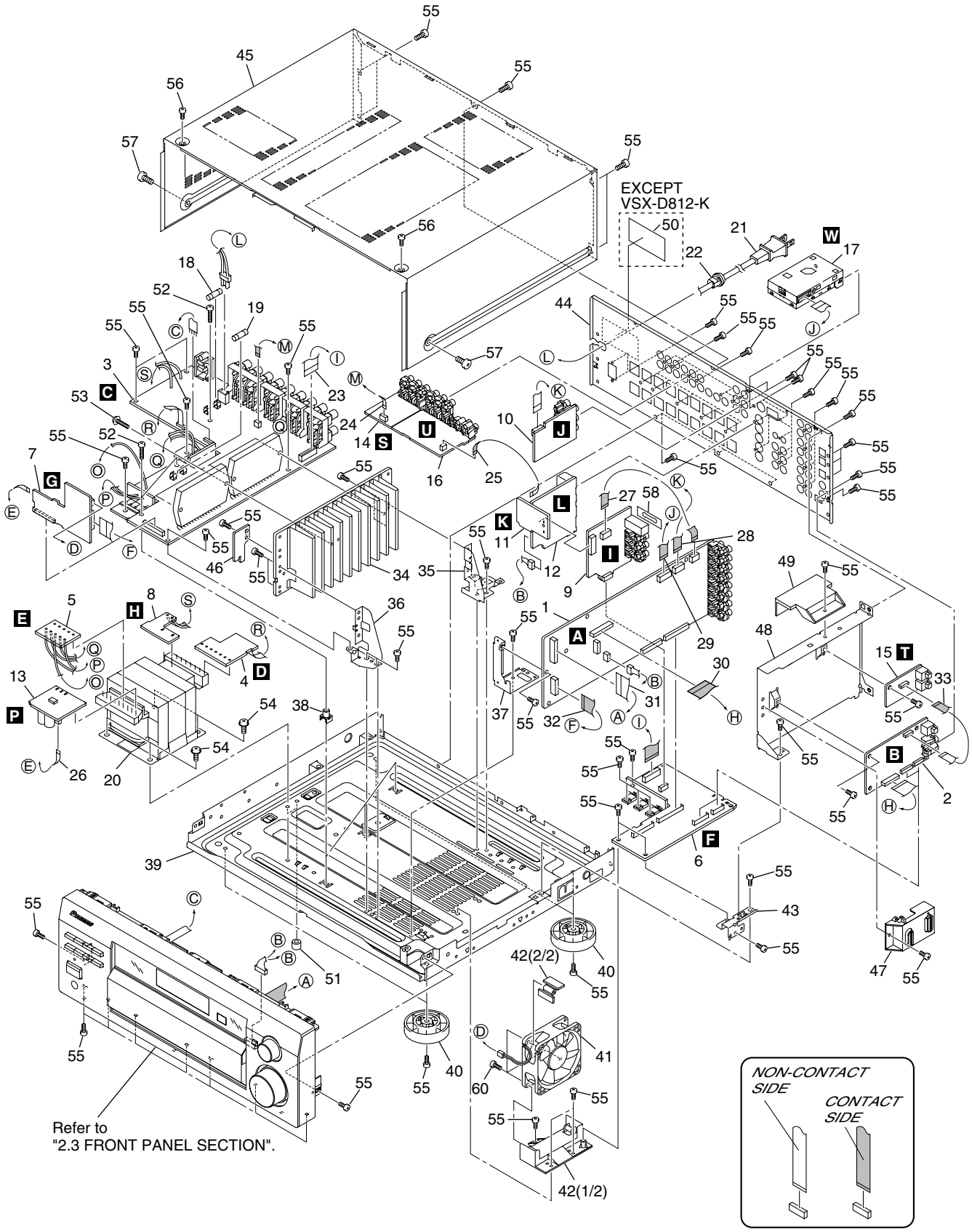
Mark	No.	Description	Part No.
	1	FM wire antenna	ADH7004
NSP	2	Warranty Card	ARY7045
	3	AM loop antenna	ATB7009
NSP	4	Dry cell batteries (AA/LR6)	See Contrast table(2)
NSP	4	Alkaline Dry cell batteries (AA/LR6)	See Contrast table(2)
	5	Operating instructions (English)	See Contrast table(2)
	6	Remote Control Unit	See Contrast table(2)
	7	Battery Cover	See Contrast table(2)
NSP	8	Literature Bag	AHG1180
	9	Packing Sheet	AHG7069
	10	Left Pad R6	XHA3134
	11	Right Pad R6	XHA3135
	12	Packing Case	See Contrast table(2)
	13	MIC Stand 45	See Contrast table(2)
	14	Microphone Assy	See Contrast table(2)
NSP	15	Accessory Board R6	XHB3008

(2) CONTRAST TABLE

VSX-D812-K/KUXJICA, VSX-D812-S/KUXJICA and VSX-D912-K/KUXJICA are constructed the same except for the following:

Mark	NO	Symbol and Description	VSX-D812-K/ KUXJICA	VSX-D812-S/ KUXJICA	VSX-D912-K/ KUXJICA
NSP	4	Dry Cell Battery (LR6, AA)	VEM1031	VEM1031	Not used
NSP	4	Alkaline Dry Cell Battery (LR6, AA)	Not used	Not used	VEM1023
	5	Operating Instructions (English)	XRB3020	XRB3020	XRB3021
	6	Remote Control Unit	XXD3051	XXD3051	XDXD3056
	7	Battery Cover	AZA7424	AZA7424	Not used
	12	Packing Case	XHD3326	XHD3352	XHD3327
	13	MIC Stand 45	Not used	Not used	AEB7269
	14	Microphone Assy	Not used	Not used	APM7004

2.2 EXTERIOR SECTION



EXTERIOR SECTION parts List

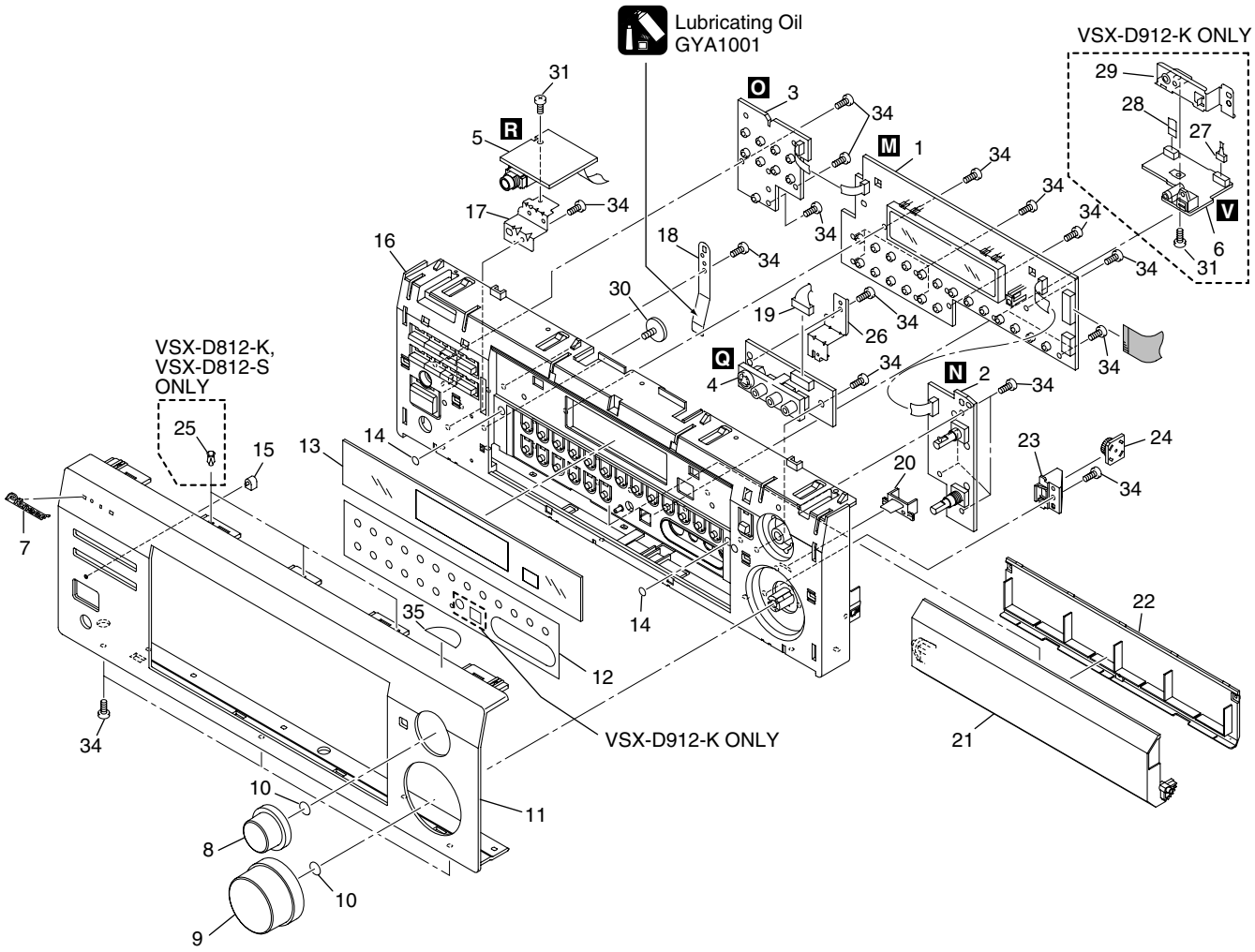
Mark	No.	Description	Part No.
	1	MAIN Assy	See Contrast table(2)
	2	DSP Assy	AWX1082
	3	AMP Assy	See Contrast table(2)
	4	TRANS2 Assy	XWZ3684
	5	TRANS3 Assy	XWZ3687
	6	REGULATOR Assy	XWZ3676
	7	AMP INPUT Assy	XWZ3679
	8	TRANS1 Assy	XWZ3681
	9	VIDEO Assy	XWZ3646
	10	6CH IN Assy	XWZ3650
	11	BOARD TO BOARD Assy	XWZ3664
	12	S. VIDEO Assy	XWZ3660
	13	TRANS4 Assy	XWZ3662
	14	PRE-OUT Assy	XWZ3663
	15	DIGITAL IN Assy	See Contrast table(2)
	16	COMPONENT Assy	XWZ3661
	17	FM/AM TUNER MODULE	AXQ7231
⚠	18	FU1 Fuse (10A)	REK1087
⚠	19	FU701 Fuse (10A)	REK1087
⚠	20	T1 Power Transformer	XTS3059
⚠	21	AC Power Cord	ADG7024
	22	Cord Stopper	CM-22C
	23	J36 23P F.F.C/30V	XDD3102
	24	J46 7P F.F.C/30V	XDD3105
	25	J38 5P F.F.C/30V	XDD3104
	26	J22 3P F.F.C/30V	XDD3107
	27	J33 11P F.F.C/30V	XDD3123
	28	J48 9P F.F.C/30V	XDD3124
	29	J34 13P F.F.C/30V	XDD3122
	30	J43 19P F.F.C/30V	XDD3126
	31	J31 17P F.F.C/30V	XDD3118
	32	J35 19P F.F.C/30V	XDD3101
	33	J37 10P F.F.C/30V	XDD3127
NSP	34	Heatsink R6A CORR	XNH3026
	35	H/S Angle Rear	XNG3095
	36	H/S Angle Front	XNG3094
	37	PCB Angle R5	XNG3073
	38	PCB Mold	AMR2533
NSP	39	Under Base R6	XNA3012
	40	Insulator	PNW2766
⚠	41	DC Fan Motor	XXM3006
	42	Fan Holder R6	XMR3066
	43	REG Support R6	XNG3093
	44	Rear Panel 812K	XNC3185
	45	Bonnet	See Contrast table(2)
NSP	46	HOLDER Assy	XWZ3693
	47	FFC Holder R6	XMR3072
	48	Shield A R6	XNG3068
	49	FFC Cover R6	XMR3060
NSP	50	N Label	See Contrast table(2)
NSP	51	Spacer	AEB7092
	52	Screw	BBZ30P200FMC
	53	Screw 3x23	ABA7043
	54	Screw	FBT40P080FZK
	55	Screw	BBZ30P080FZK
	56	Screw	See Contrast table(2)
	57	Screw	See Contrast table(2)
	58	Vjack Spacer R6	XEC3038
NSP	59	BINDER Assy	XWZ3691
	60	Screw	BPZ30P120FMC

(2) CONTRAST TABLE

VSX-D812-K/KUXJICA, VSX-D812-S/KUXJICA and VSX-D912-K/KUXJICA are constructed the same except for the following:

Mark	NO	Symbol and Description	VSX-D812-K/ KUXJICA	VSX-D812-S/ KUXJICA	VSX-D912-K/ KUXJICA
	1	MAIN Assy	XWK3095	XWK3095	XWK3100
	3	AMP & PRIMARY Assy	XWZ3669	XWZ3669	XWZ3673
	15	DIGITAL IN Assy	XWZ3658	XWZ3658	XWZ3659
	45	Bonnet D912K	XZN3126	Not used	XZN3126
	45	Bonnet D912S	Not used	XZN3127	Not used
NSP	50	N Label 912K/KU	Not used	Not used	XAL3172
NSP	50	N Label 812S/KU	Not used	XAL3177	Not used
	56	Screw	BPZ30P080FZK	BPZ30P080FNI	BPZ30P080FZK
	57	Screw	FBT40P080FZK	FBT40P080FNI	FBT40P080FZK

2.3 FRONT PANEL SECTION



FRONT PANEL SECTION parts List

Mark	No.	Description	Part No.
	1	FRONT ASSY	XWZ3648
	2	R. ENCODER Assy	XWZ3653
	3	POWER SW Assy	XWZ3651
	4	FRONT VIDEO Assy	XWZ3655
	5	H.P. Assy	XWZ3654
	6	FRONT OPTICAL & MIC Assy	See Contrast table(2)
	7	Pioneer Badge B	See Contrast table(2)
	8	Select Knob	See Contrast table(2)
	9	Volume Knob	See Contrast table(2)
NSP	10	C Ring DIM 8.1	XBH3016
	11	FRT Panel	See Contrast table(2)
	12	BN Cover	See Contrast table(2)
	13	D Panel R6 W	XAK3348
	14	Cushion	See Contrast table(2)
	15	LED Lens	PNW2019
	16	Panel Stay	See Contrast table(2)
	17	Earth Plate R5 HP	XNG3066
	18	Door Spring R6	XBK3002
	19	J29 8P Shield Cable	XDX3012
	20	B Lens R6	XAK3352
	21	Door	See Contrast table(2)
	22	Door Cover	See Contrast table(2)
	23	Holder L R6	XMR3059
	24	Damper Assy	XXA3025
	25	Push Rivet	See Contrast table(2)
	26	Earth Plate FI R6	XNG3091
	27	J30 5P Shield Cable	See Contrast table(2)
	28	J32 5P F.F.C/30V	See Contrast table(2)
	29	Earth Plate D R6	See Contrast table(2)
	30	Screw	XBA3010
	31	Screw	BBZ30P080FZK
	32	•••••	
	33	•••••	
	34	Screw	PPZ30P100FMC
NSP	35	Energy Star Label	AAX7876

(2) CONTRAST TABLE

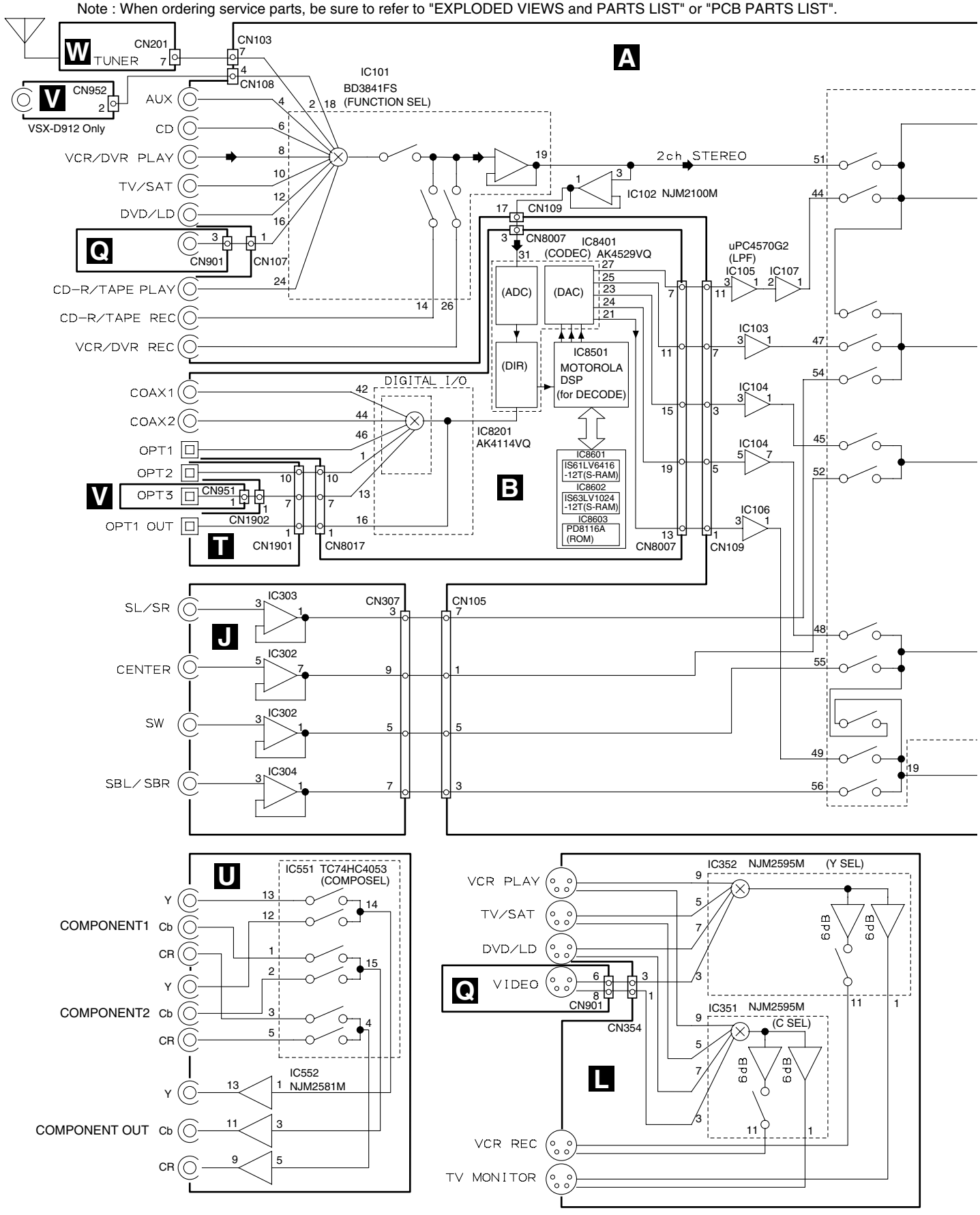
VSX-D812-K/KUXJICA, VSX-D812-S/KUXJICA and VSX-D912-K/KUXJICA are constructed the same except for the following:

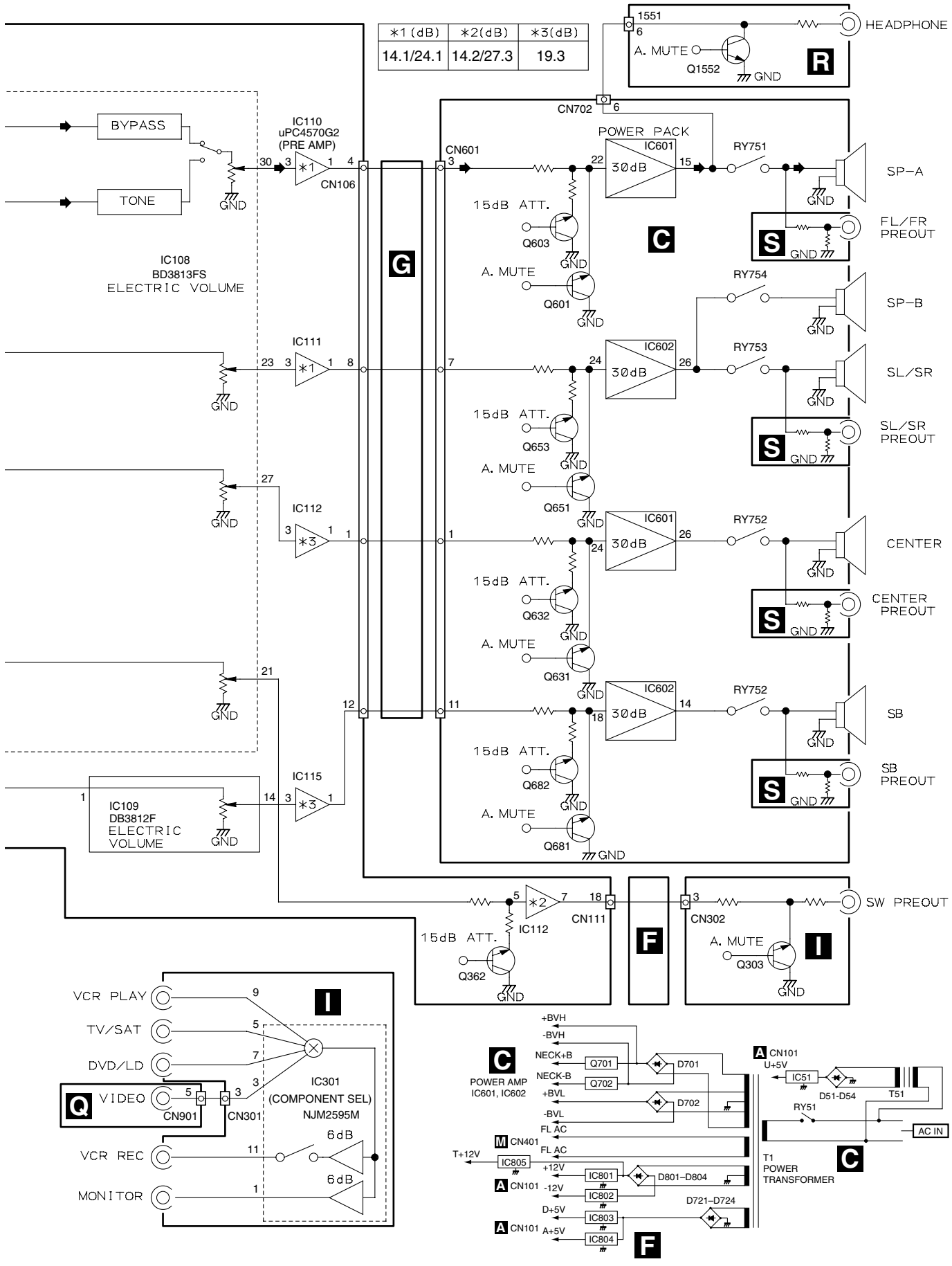
Mark	NO	Symbol and Description	VSX-D812-K/ KUXJICA	VSX-D812-S/ KUXJICA	VSX-D912-K/ KUXJICA
	6	FRONT OPTICAL & MIC Assy	Not used	Not used	XWZ3656
	7	Pioneer Badge B	XAM3006	VAM1129	AAN7218
	8	Select Knob R5BH	XAB3023	Not used	XAB3023
	8	SEL Plat Knob R6S	Not used	XAB3037	Not used
	9	Volume Knob R5BH	XAB3025	Not used	XAB3025
	9	VOL Plat Knob R6S	Not used	XAB3036	Not used
	11	FRT Panel 812K/KU	XMB3095	Not used	Not used
	11	FRT Panel 812S/KU	Not used	XMB3126	Not used
	11	FRT Panel 912K/KU	Not used	Not used	XNB3002
	12	BN Cover 712K/KU	XAK3355	Not used	Not used
	12	BN Cover 812S/JP	Not used	XAK3379	Not used
	12	BN Cover 912K/KU	Not used	Not used	XAK3354
	14	Cushion R4B	XED3001	Not used	XED3001
	14	Cushion R4G	Not used	XED3002	Not used
	16	Panel Stay 812K/KU	XMB3109	Not used	Not used
	16	Panel Stay 812S/KU	Not used	XMB3124	Not used
	16	Panel Stay 912K/KU	Not used	Not used	XMB3094
	21	Door R6K	XAK3356	Not used	XAK3356
	21	Door R6S	Not used	XAK3357	Not used
	22	Door Cover R6K	XAK3358	Not used	XAK3358
	22	Door Cover R6S	Not used	XAK3359	Not used
	25	Push Rivet	AEC7025	AEC7025	Not used
	27	5P Shield Cable	Not used	Not used	XDX3019
	28	J32 5P F.F.C/30V	Not used	Not used	XDD3125
	29	Earth Plate D R6	Not used	Not used	XNG3092

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

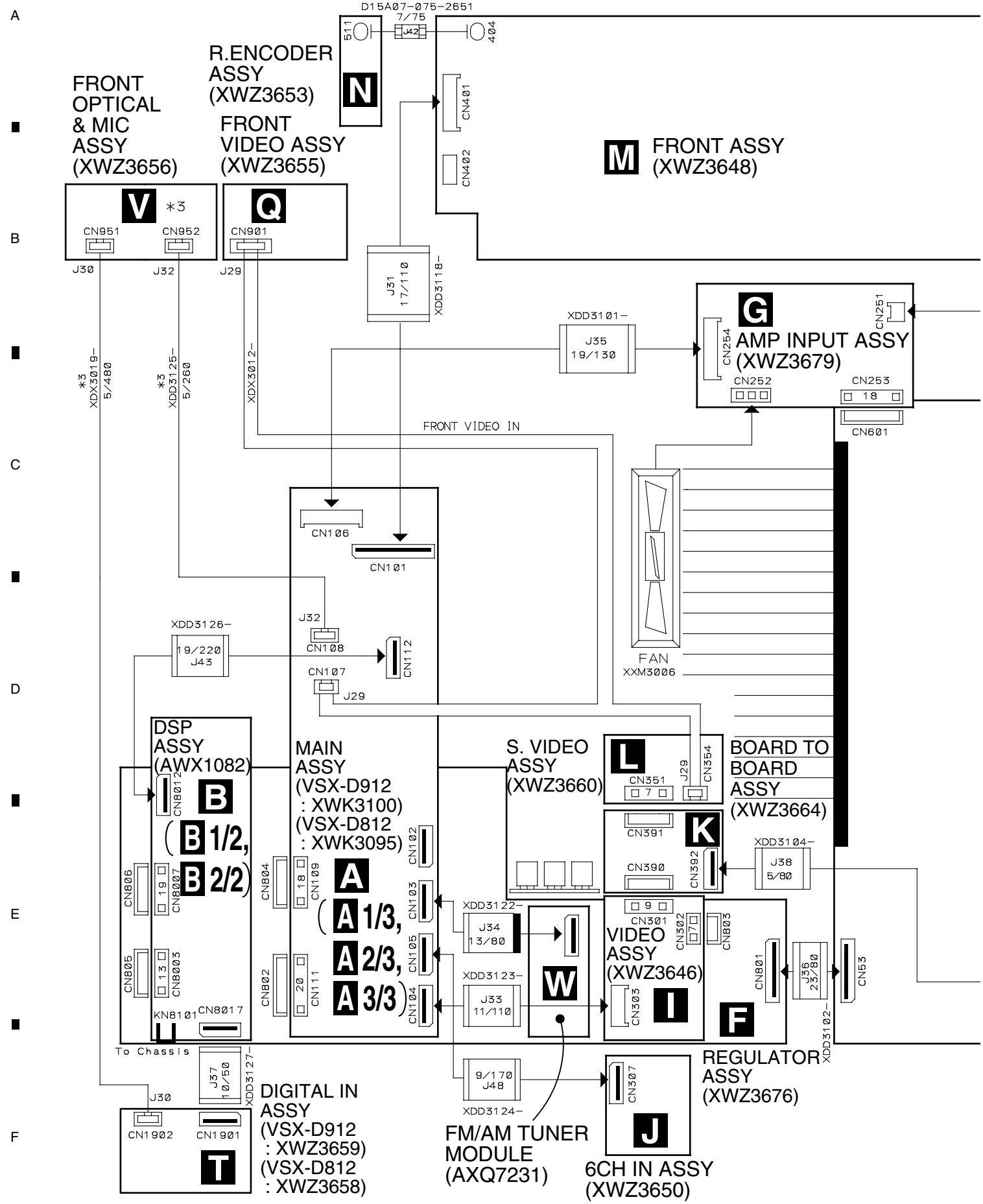
3.1 BLOCK DIAGRAM

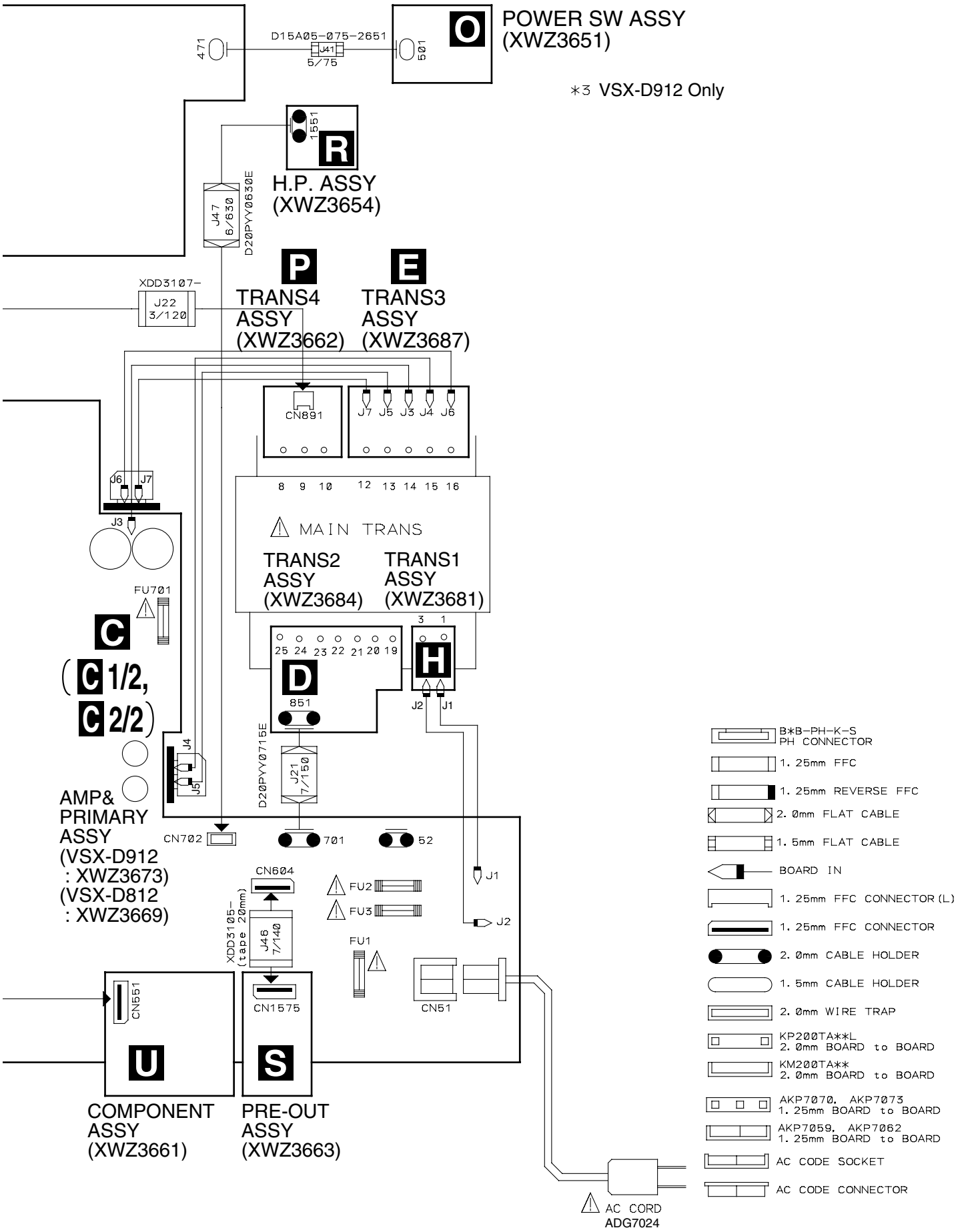
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



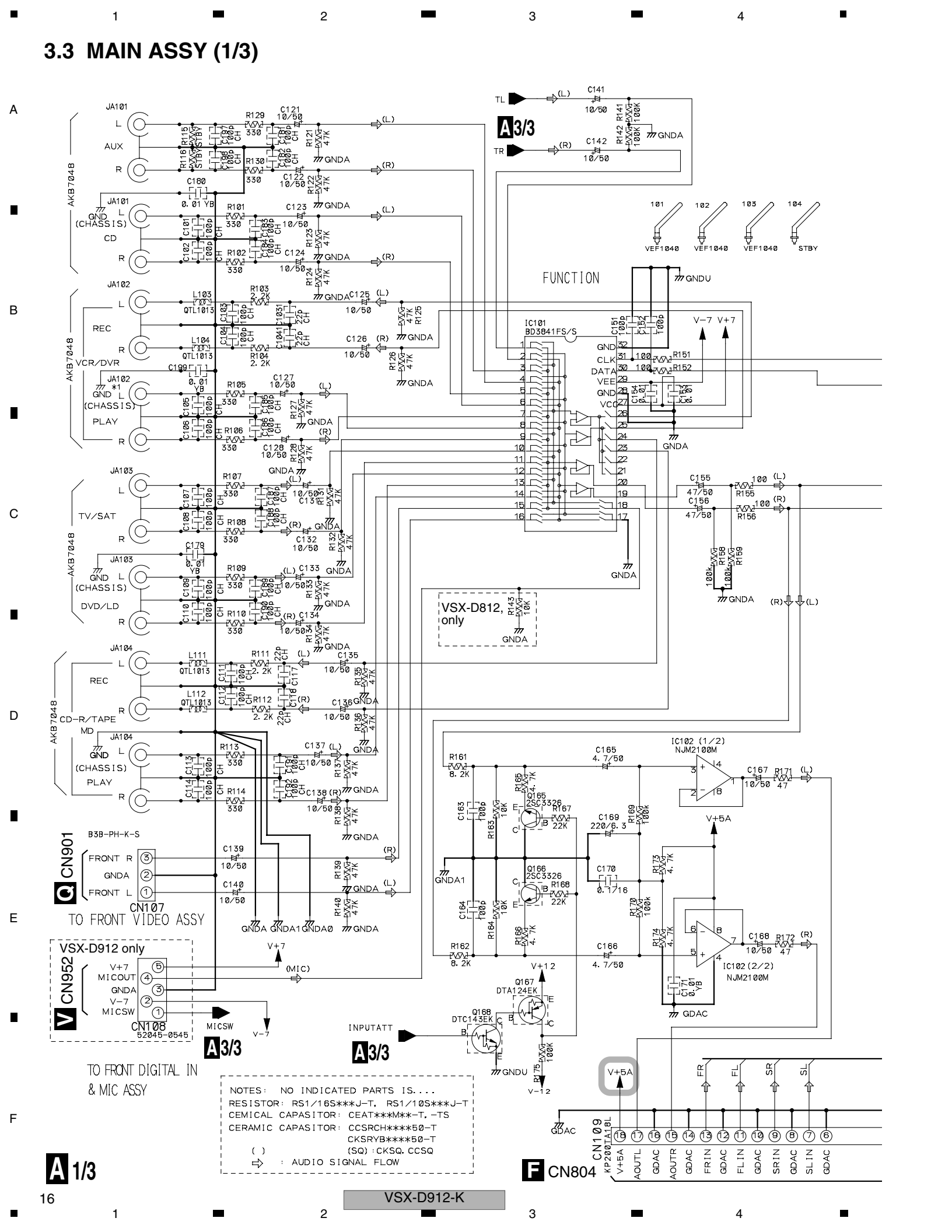

∗1 (dB) ∗2(dB) ∗3(dB)
14.1/24.1 14.2/27.3 19.3
HEADPHONE
A. MUTE
Q1552
GND
CN702
POWER PACK
IC601
30dB
RY751
SP–A
FL/FR PREOUT
BYPASS
TONE
IC110
uPC4570G2
(PRE AMP)
CN106
CN601
15dB ATT.
Q603
A. MUTE
Q601
IC108
BD3813FS
ELECTRIC VOLUME
RY754
SP–B
IC111
IC602
RY753
SL/SR
SL/SR PREOUT
Q653
Q651
IC112
RY752
CENTER
CENTER PREOUT
Q632
Q631
SB
SB PREOUT
Q682
Q681
IC109
DB3812F
ELECTRIC VOLUME
IC115
CN111
Q362
CN302
SW PREOUT
Q303
VCR PLAY
TV/SAT
DVD/LD
VIDEO
CN901
CN301
IC301
(COMPONENT SEL)
NJM2595M
6dB
VCR REC
MONITOR
POWER AMP
IC601, IC602
+BVH
-BVH
NECK+B
NECK-B
+BVL
-BVL
FL AC
Q701
Q702
D701
D702
CN401
T+12V
IC805
+12V
-12V
D+5V
A+5V
IC801
IC802
IC803
IC804
D801–D804
D721–D724
CN101
U+5V
IC51
D51-D54
T51
RY51
AC IN
T1
POWER
TRANSFORMER

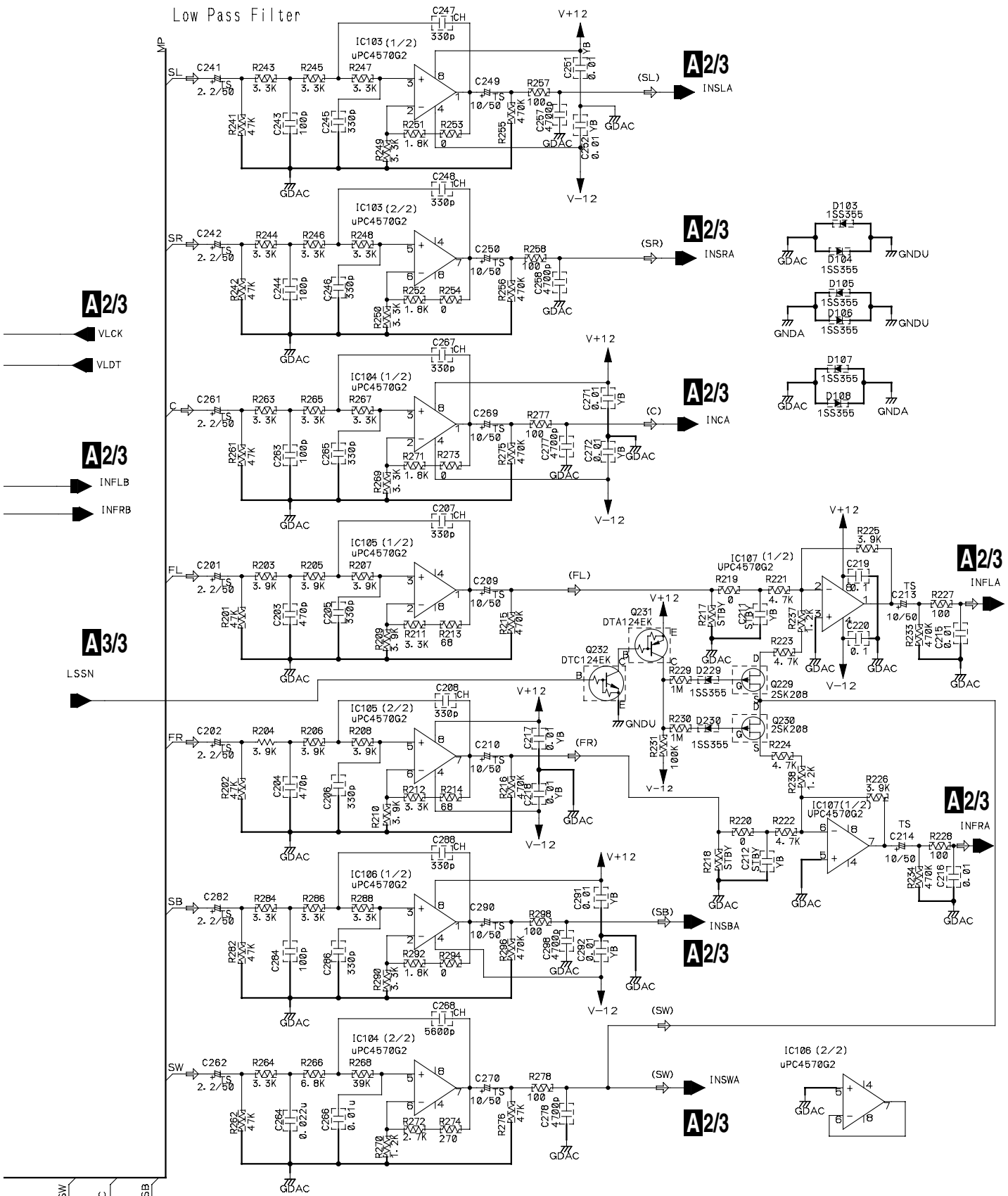
3.2 OVERALL WIRING CONNECTION DIAGRAM




O
POWER SW ASSY
(XWZ3651)
*3 VSX-D912 Only
D15A05-075-2651
J41
5/75
471
501
R
1551
H.P. ASSY
(XWZ3654)
J47
6/630
D20PYY0630E
P
TRANS4
ASSY
(XWZ3662)
E
TRANS3
ASSY
(XWZ3687)
XDD3107-
J22
3/120
CN891
J7 J5 J3 J4 J6
8 9 10 12 13 14 15 16
MAIN TRANS
TRANS2
ASSY
(XWZ3684)
TRANS1
ASSY
(XWZ3681)
J6 J7
J3
FU701
C
(C 1/2,
C 2/2)
AMP&
PRIMARY
ASSY
(VSX-D912
: XWZ3673)
(VSX-D812
: XWZ3669)
25 24 23 22 21 20 19
D
851
3 1
H
J2 J1
J4
J5
D20PYY0715E
J21
7/150
CN702
701
52
CN604
XDD3105-
(tape 20mm)
J46
7/140
FU2
FU3
FU1
J1
J2
CN551
CN1575
CN51
U
S
COMPONENT
ASSY
(XWZ3661)
PRE-OUT
ASSY
(XWZ3663)
AC CORD
ADG7024
B*B-PH-K-S
PH CONNECTOR
1.25mm FFC
1.25mm REVERSE FFC
2.0mm FLAT CABLE
1.5mm FLAT CABLE
BOARD IN
1.25mm FFC CONNECTOR (L)
1.25mm FFC CONNECTOR
2.0mm CABLE HOLDER
1.5mm CABLE HOLDER
2.0mm WIRE TRAP
KP200TA**L
2.0mm BOARD to BOARD
KM200TA**
2.0mm BOARD to BOARD
AKP7070, AKP7073
1.25mm BOARD to BOARD
AKP7059, AKP7062
1.25mm BOARD to BOARD
AC CODE SOCKET
AC CODE CONNECTOR

3.3 MAIN ASSY (1/3)



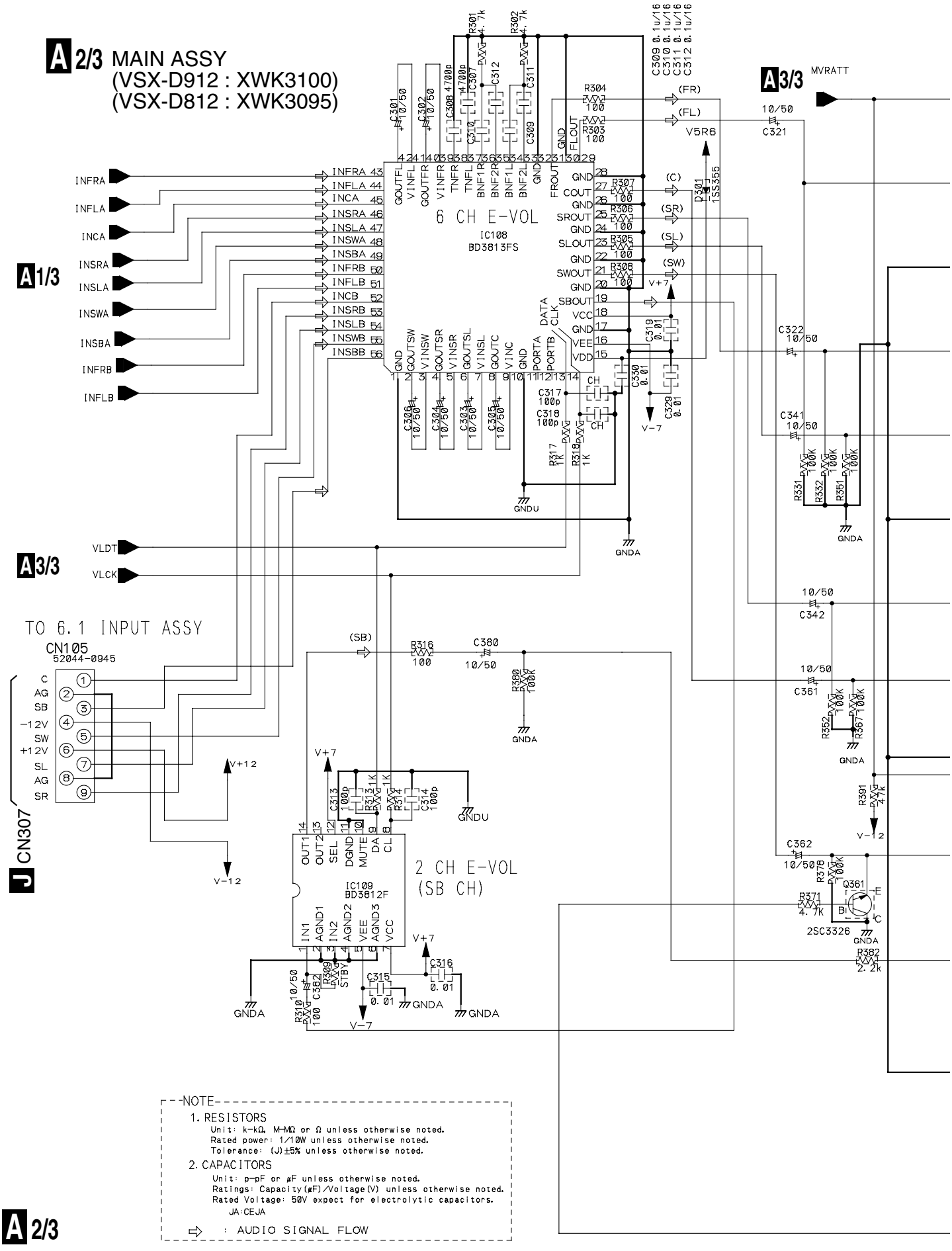


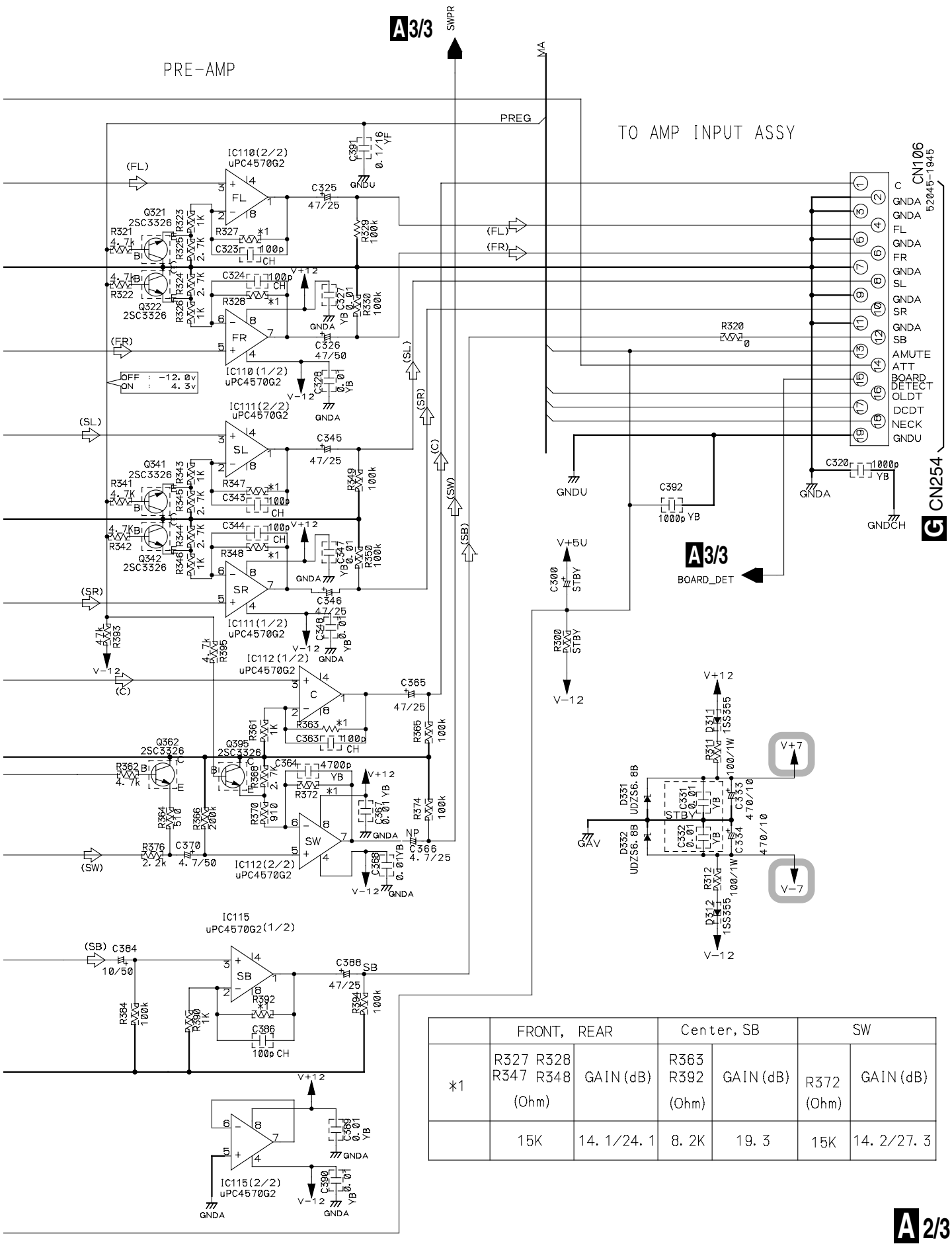
A 1/3 MAIN ASSY
(VSX-D912 : XWK3100)
(VSX-D812 : XWK3095)

: The power supply is shown with the marked box.

A 1/3

3.4 MAIN ASSY (2/3)

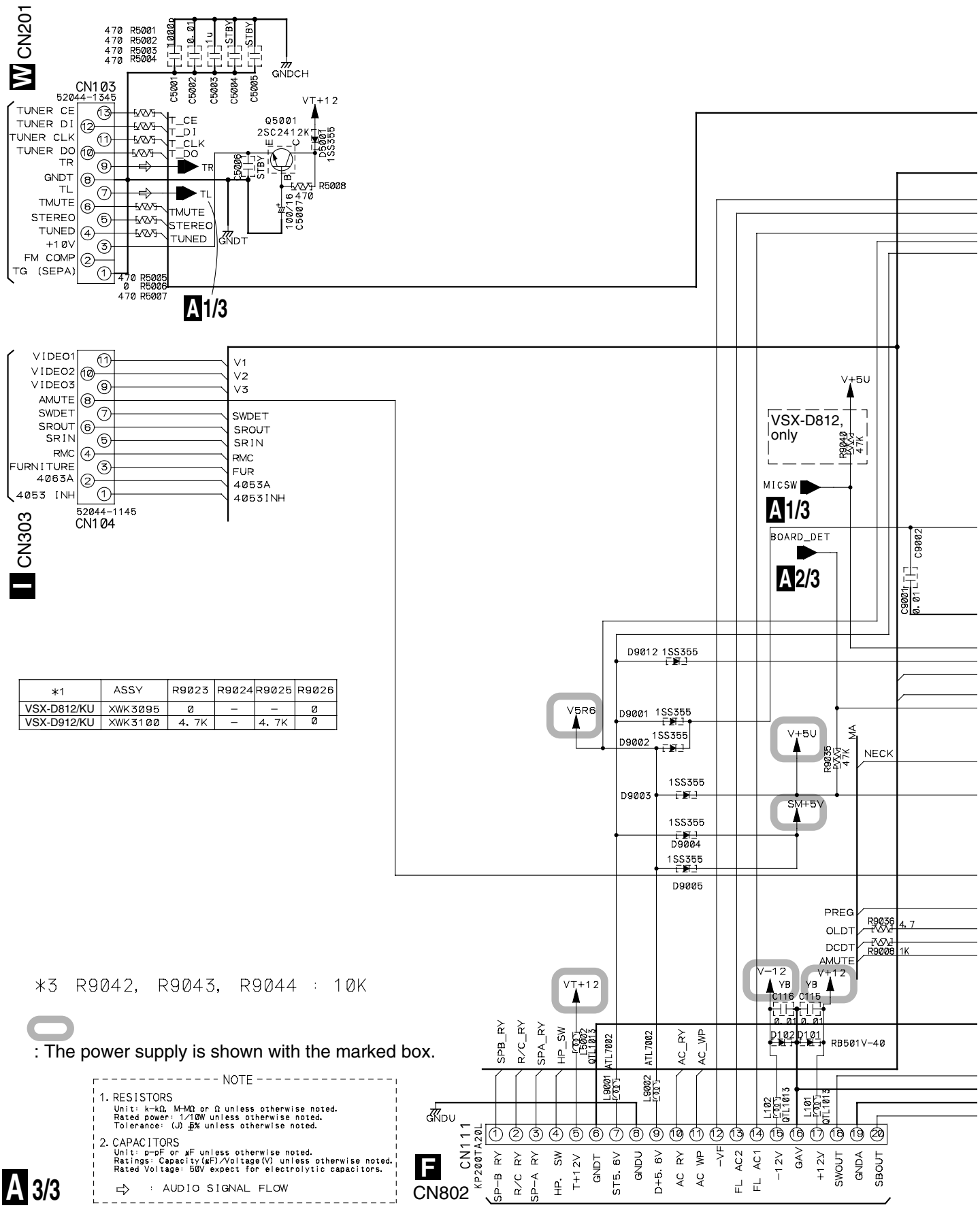




	FRONT, REAR		Center, SB		SW	
*1	R327 R328 R347 R348 (Ohm)	GAIN(dB)	R363 R392 (Ohm)	GAIN(dB)	R372 (Ohm)	GAIN(dB)
	15K	14.1/24.1	8.2K	19.3	15K	14.2/27.3

A2/3

3.5 MAIN ASSY (3/3)



*1	ASSY	R9023	R9024	R9025	R9026
VSX-D812/KU	XWK3095	0	–	–	0
VSX-D912/KU	XWK3100	4.7K	–	4.7K	0

*3 R9042, R9043, R9044 : 10K

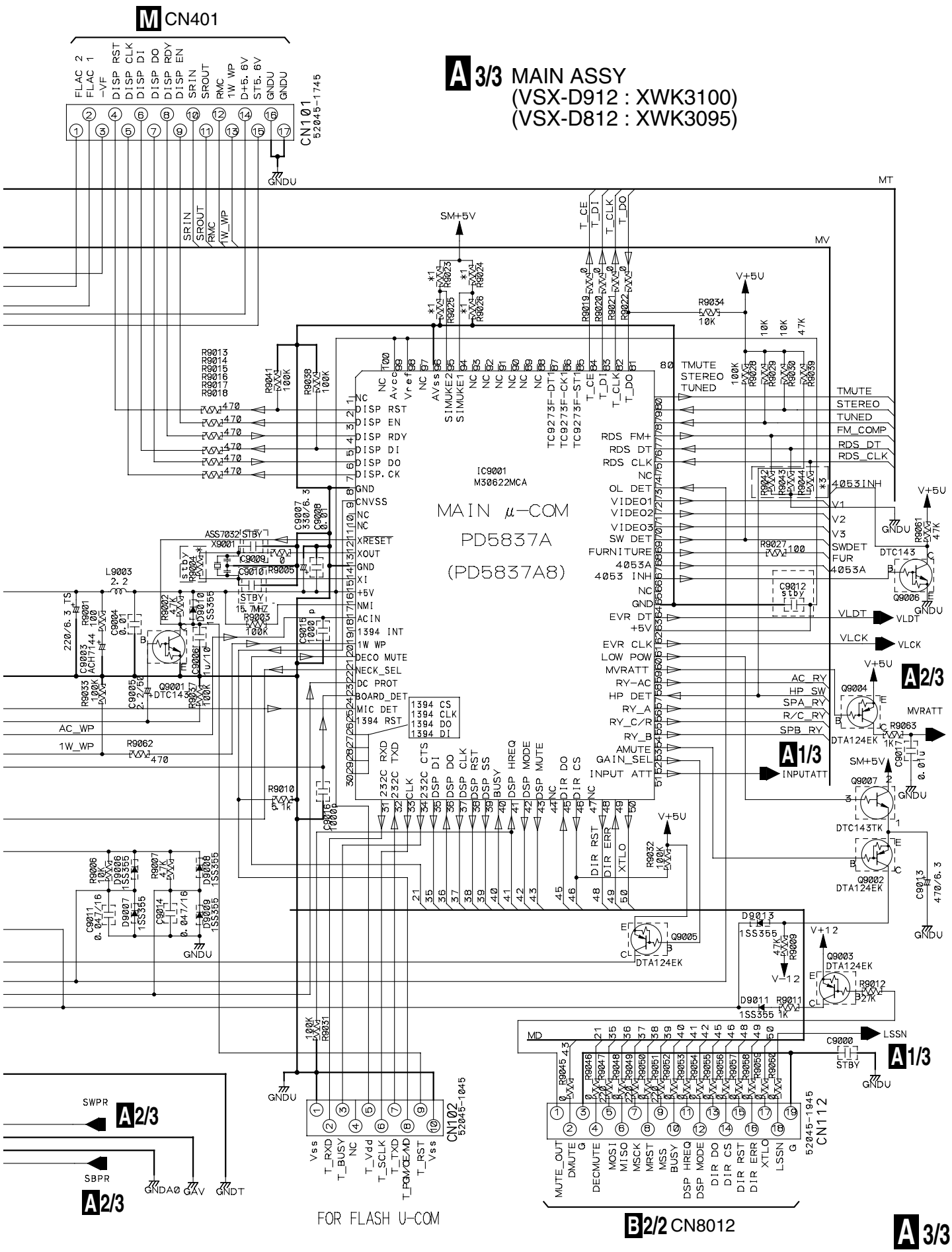
: The power supply is shown with the marked box.

NOTE

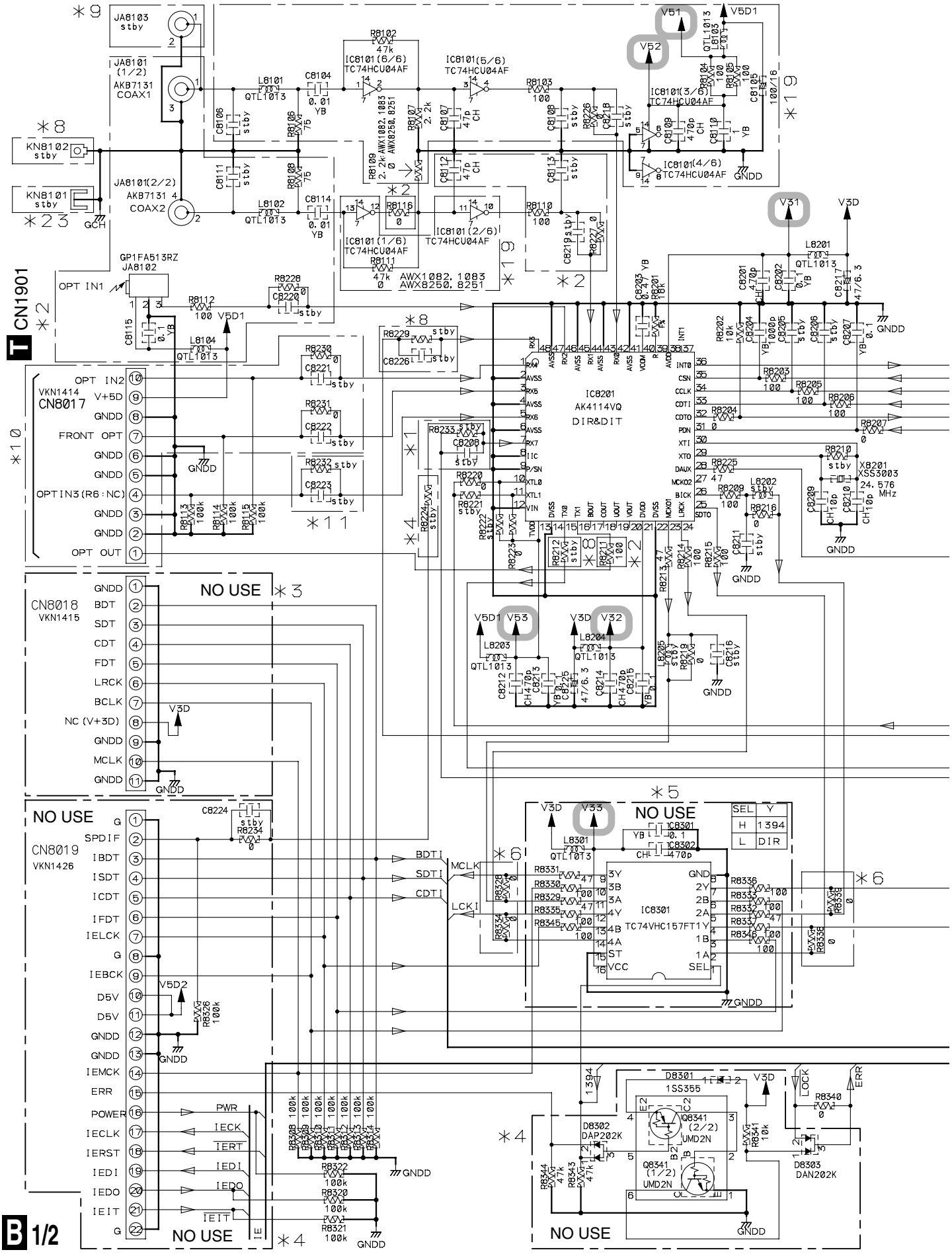
1. RESISTORS
   Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
   Rated power: 1/10W unless otherwise noted.
   Tolerance: (J) ±5% unless otherwise noted.
2. CAPACITORS
   Unit: p-pF or μF unless otherwise noted.
   Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
   Rated Voltage: 50V expect for electrolytic capacitors.

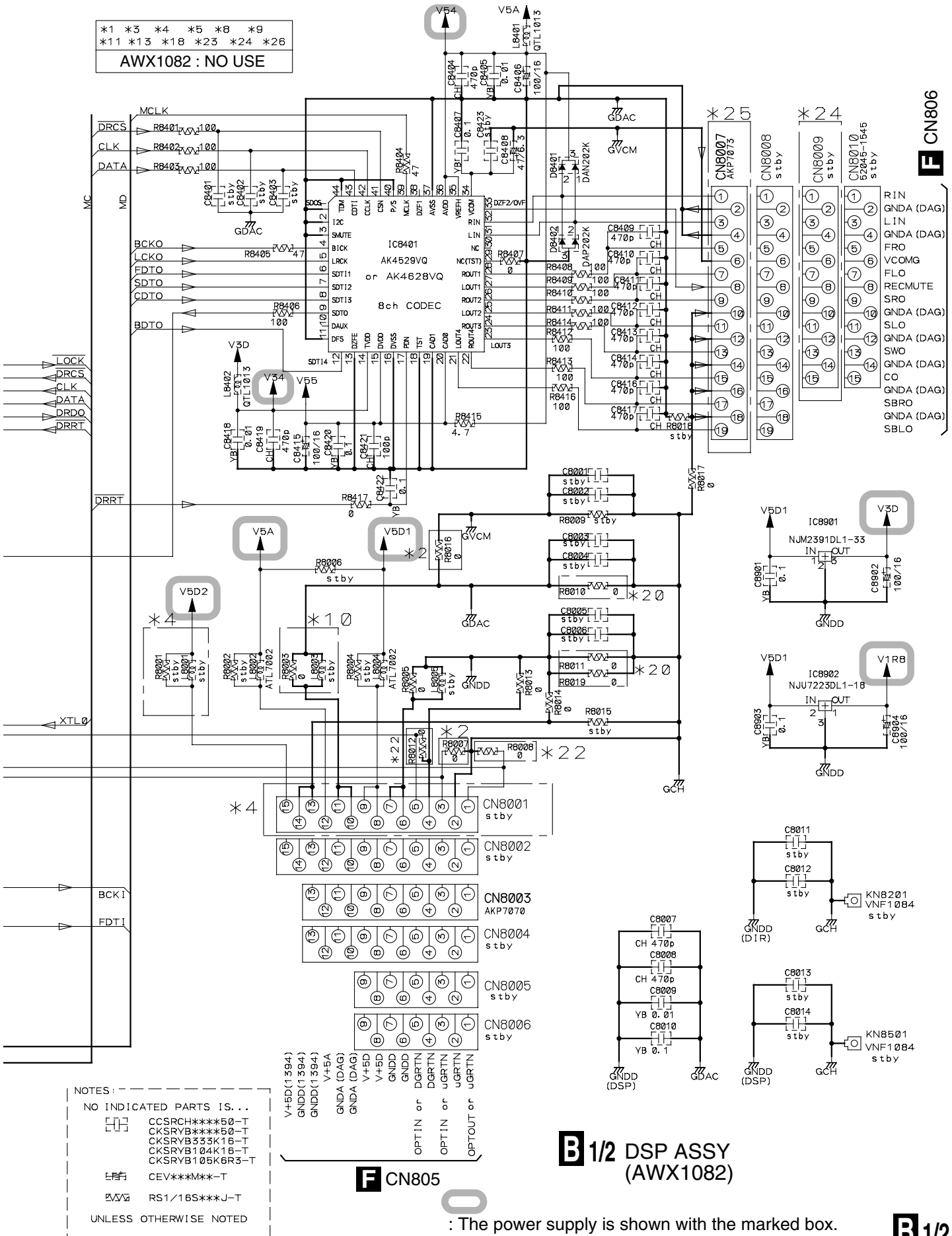
⇨ : AUDIO SIGNAL FLOW

A 3/3

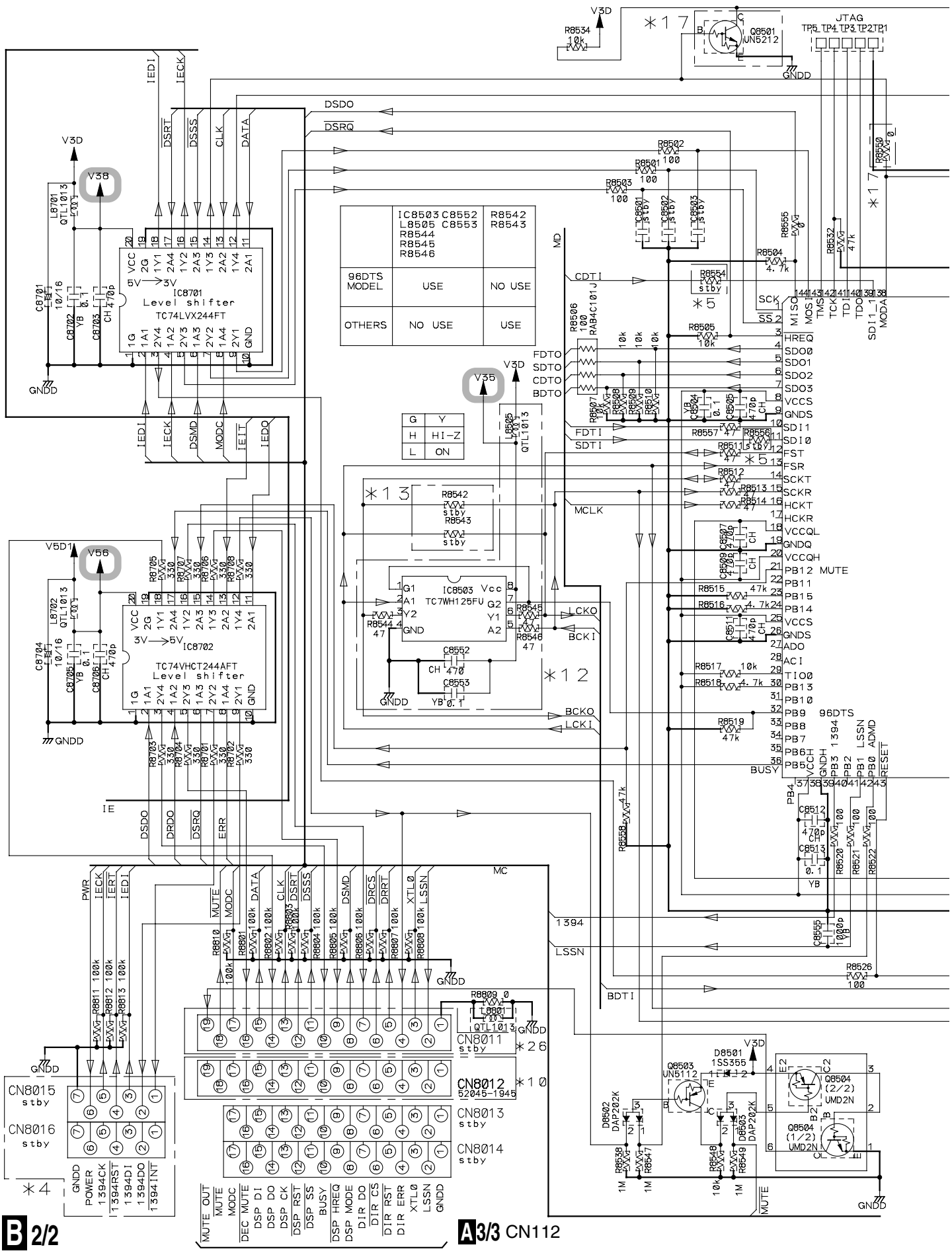

M CN401
A 3/3 MAIN ASSY
(VSX-D912 : XWK3100)
(VSX-D812 : XWK3095)
CN101
52045-1745
FLAC 2
FLAC 1
-VF
DISP RST
DISP CLK
DISP DI
DISP DO
DISP RDY
DISP EN
SRIN
SROUT
RMC
1W WP
D+5. 6V
ST5. 6V
GNDU
GNDU
SRIN
SROUT
RMC
1W_WP
MT
MV
SM+5V
T_CE
T_DI
T_CLK
T_DO
V+5U
R9034
10K
IC9001
M30622MCA
MAIN μ-COM
PD5837A
(PD5837A8)
TC9273F-DT1
TC9273F-CK1
TC9273F-ST1
SIMUKE2
SIMUKE1
AVss
Vref
Avcc
NC
DISP RST
DISP EN
DISP RDY
DISP DI
DISP DO
DISP.CK
GND
CNVSS
XRESET
XOUT
XI
+5V
NMI
ACIN
1394 INT
1W WP
DECO MUTE
NECK_SEL
DC PROT
BOARD_DET
MIC DET
1394 RST
1394 CS
1394 CLK
1394 DO
1394 DI
232C RXD
232C TXD
CLK
232C CTS
DSP DI
DSP DO
DSP CLK
DSP RST
DSP SS
BUSY
DSP HREQ
DSP MODE
DSP MUTE
DIR DO
DIR CS
DIR RST
DIR ERR
XTLO
TMUTE
STEREO
TUNED
FM_COMP
RDS FM+
RDS DT
RDS CLK
OL DET
VIDEO1
VIDEO2
VIDEO3
SW DET
FURNITURE
4053A
4053 INH
EVR DT
EVR CLK
LOW POW
MVRATT
RY-AC
HP DET
RY_A
RY_C/R
RY_B
AMUTE
GAIN_SEL
INPUT ATT
4053INH
V1
V2
V3
SWDET
FUR
4053A
VLDT
VLCK
AC_RY
HP_SW
SPA_RY
R/C_RY
SPB_RY
INPUTATT
MVRATT
RDS_DT
RDS_CLK
TMUTE
STEREO
TUNED
FM_COMP
RDS_DT
RDS_CLK
ASS7032 STBY
X9001
15. 7MHz
STBY
L9003
2.2
220/6. 3
AC_WP
1W_WP
R9062
470
R9010
1k
GNDU
V+12
V-12
LSSN
MD
SWPR
SBPR
GNDA
GAV
GNDT
A 2/3
A 1/3
A 3/3
B 2/2 CN8012
CN102
52045-1045
CN112
52045-1945
Vss
T_RXD
T_BUSY
NC
T_Vdd
T_SCLK
T_TXD
T_PGMODE
T_RST
Vss
MUTE_OUT
DMUTE
G
DECMUTE
MOSI
MISO
MSCK
MRST
MSS
BUSY
DSP HREQ
DSP MODE
DIR DO
DIR CS
DIR RST
DIR ERR
XTLO
LSSN
G
FOR FLASH U-COM

3.6 DSP ASSY (1/2)

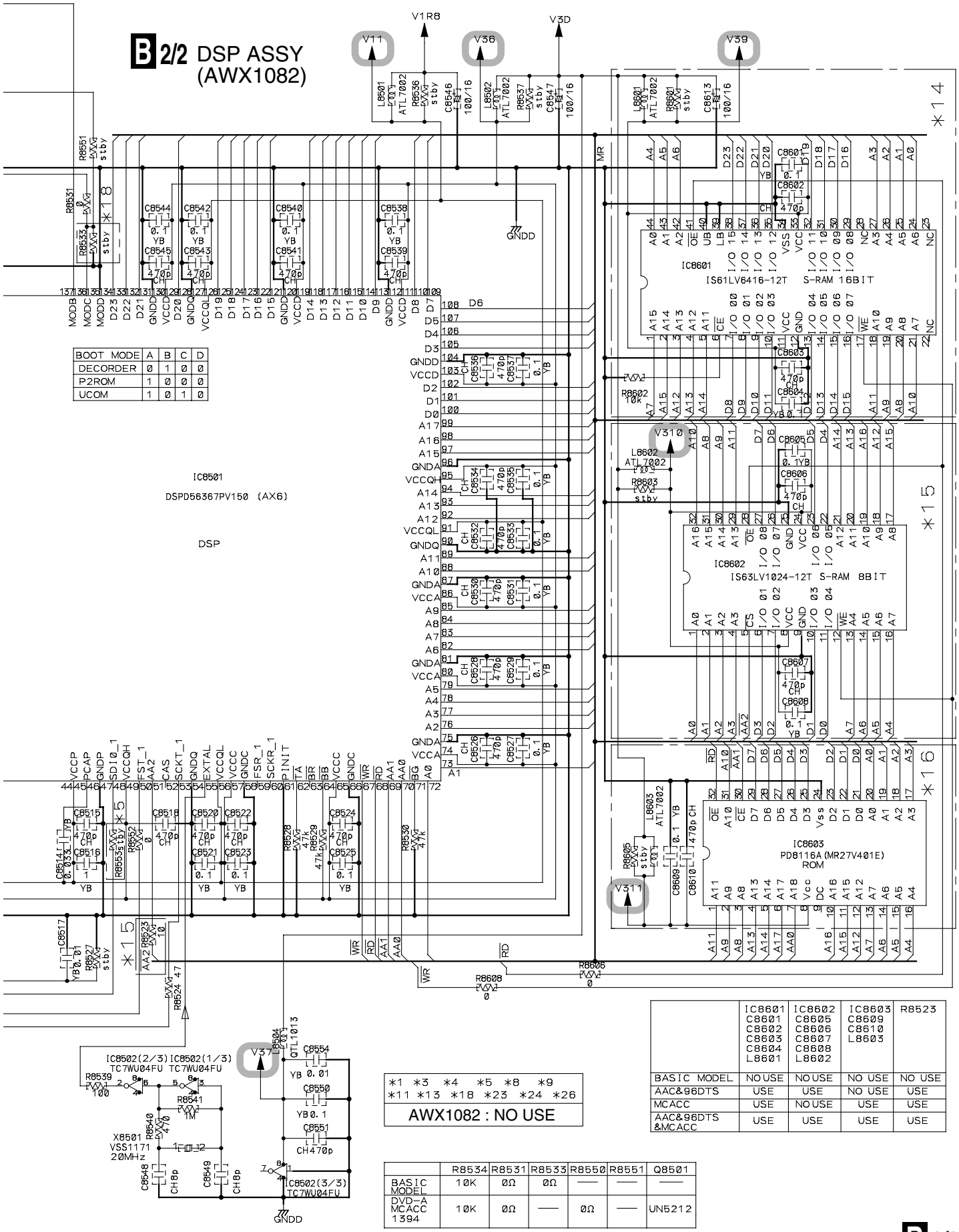



*1 *3 *4 *5 *8 *9
*11 *13 *18 *23 *24 *26
AWX1082 : NO USE
IC8401
AK4529VQ
or AK4628VQ
8ch CODEC
CN8007
AKP7073
CN8008
CN8009
CN8010
52045-1545
CN8001
CN8002
CN8003
AKP7070
CN8004
CN8005
CN8006
IC8901
NJM2391DL1-33
IC8902
NJU7223DL1-18
KN8201
VNF1084
KN8501
VNF1084
F CN806
F CN805
B 1/2 DSP ASSY
(AWX1082)
: The power supply is shown with the marked box.
B 1/2
NOTES:
NO INDICATED PARTS IS...
CCSRCH****50-T
CKSRYB****50-T
CKSRYB333K16-T
CKSRYB104K16-T
CKSRYB105K6R3-T
CEV****M**-T
RS1/16S***J-T
UNLESS OTHERWISE NOTED

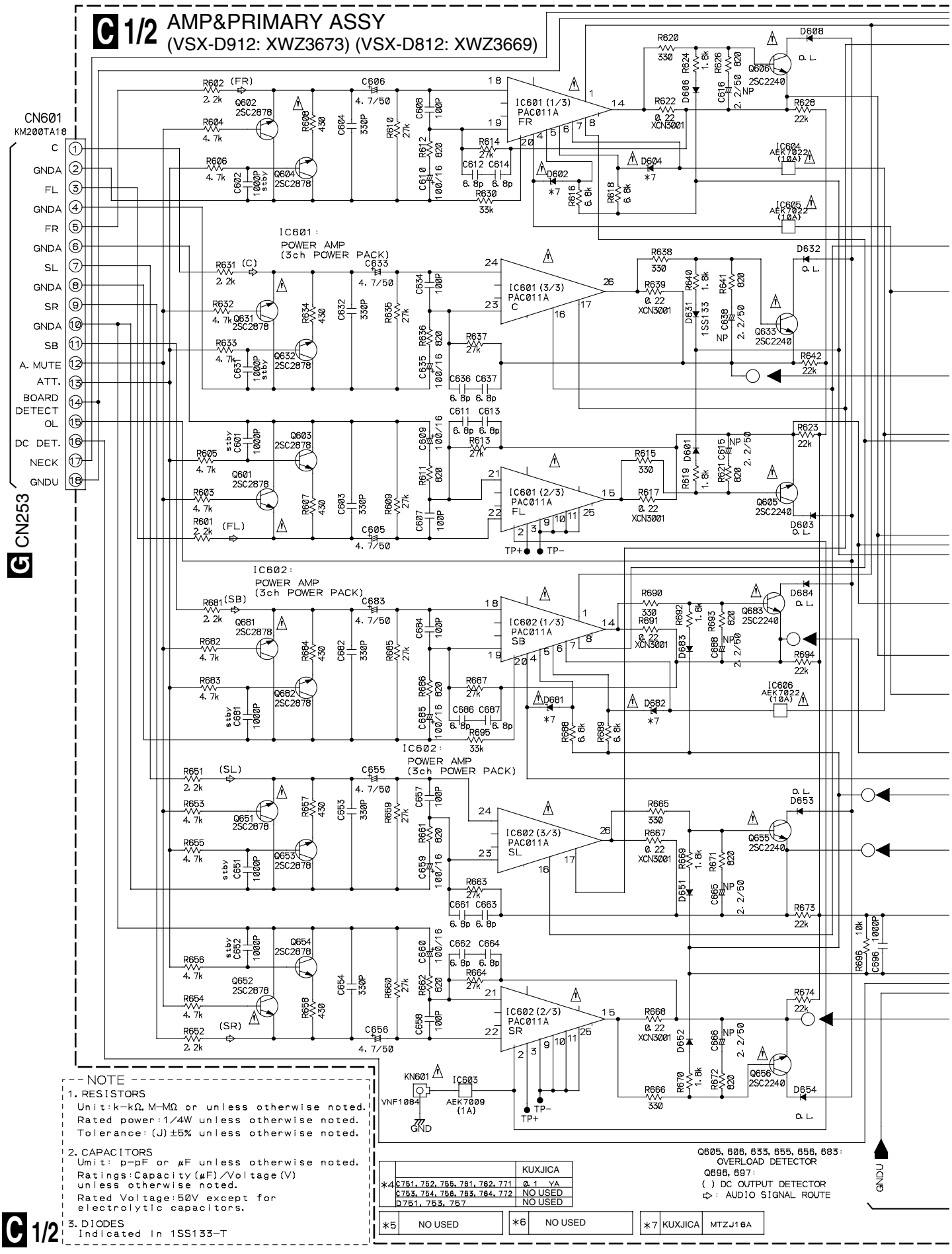
3.7 DSP ASSY (2/2)

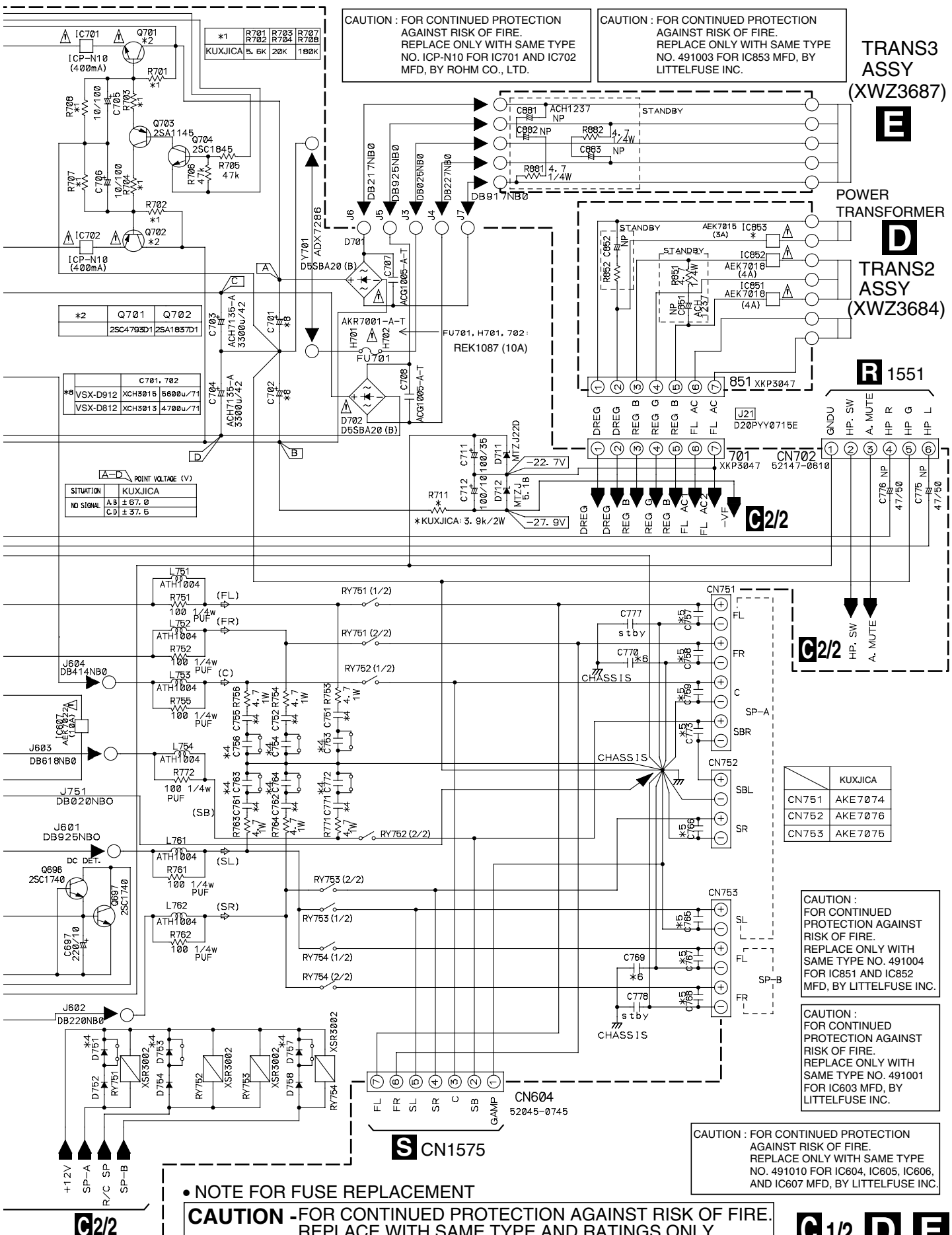


B 2/2 DSP ASSY (AWX1082)

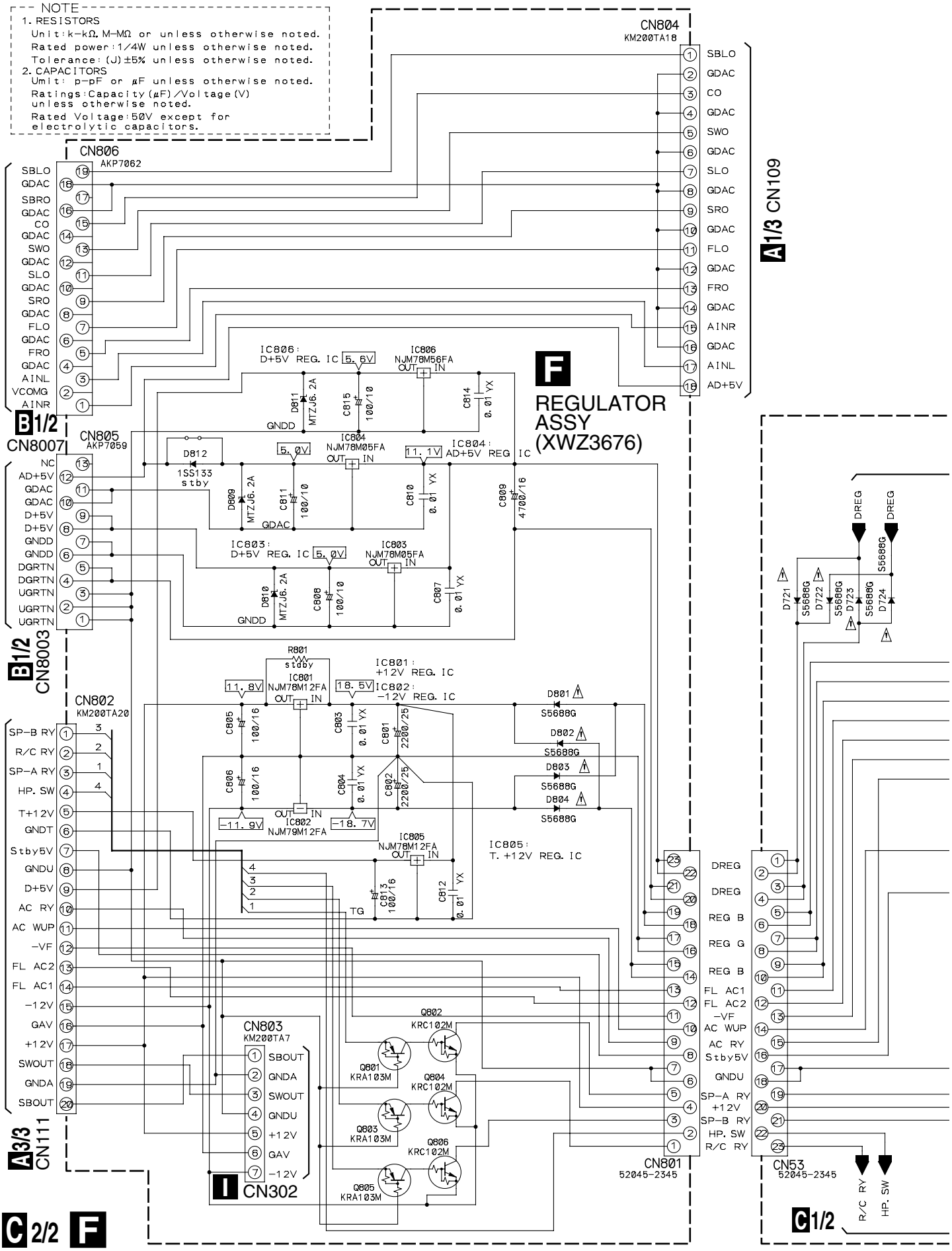

V1R8
V3D
V11
V36
V39
V310
V311
V37
IC8501
DSPD56367PV150 (AX6)
DSP
IC8601
IS61LV6416-12T S-RAM 16BIT
IC8602
IS63LV1024-12T S-RAM 8BIT
IC8603
PD8116A(MR27V401E)
ROM
IC8502(2/3) TC7WU04FU
IC8502(1/3) TC7WU04FU
IC8502(3/3) TC7WU04FU
X8501
VSS1171
20MHz
GNDD
MR
WR
RD
BOOT_MODE | A | B | C | D
DECORDER | 0 | 1 | 0 | 0
P2ROM | 1 | 0 | 0 | 0
UCOM | 1 | 0 | 1 | 0
*1 *3 *4 *5 *8 *9
*11 *13 *18 *23 *24 *26
AWX1082 : NO USE
IC8601 C8601 C8602 C8603 C8604 L8601 | IC8602 C8605 C8606 C8607 C8608 L8602 | IC8603 C8609 C8610 L8603 | R8523
BASIC MODEL | NO USE | NO USE | NO USE | NO USE
AAC&96DTS | USE | USE | NO USE | USE
MCACC | USE | NO USE | USE | USE
AAC&96DTS &MCACC | USE | USE | USE | USE
R8534 | R8531 | R8533 | R8550 | R8551 | Q8501
BASIC MODEL | 10K | 0Ω | 0Ω | — | — | —
DVD-A MCACC 1394 | 10K | 0Ω | — | 0Ω | — | UN5212

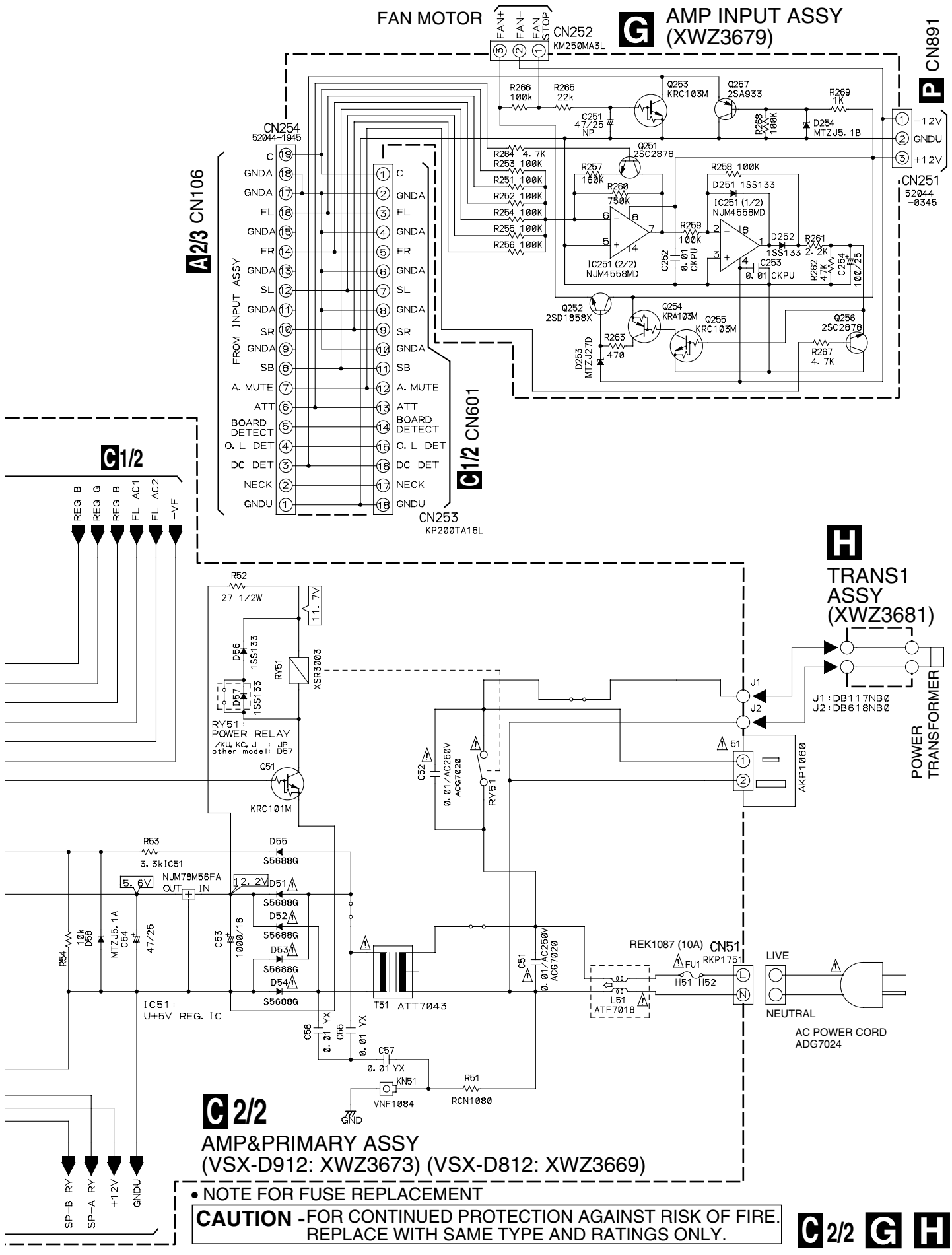
3.8 AMP & PRIMARY (1/2), TRANS2 and TRANS3 ASSYS



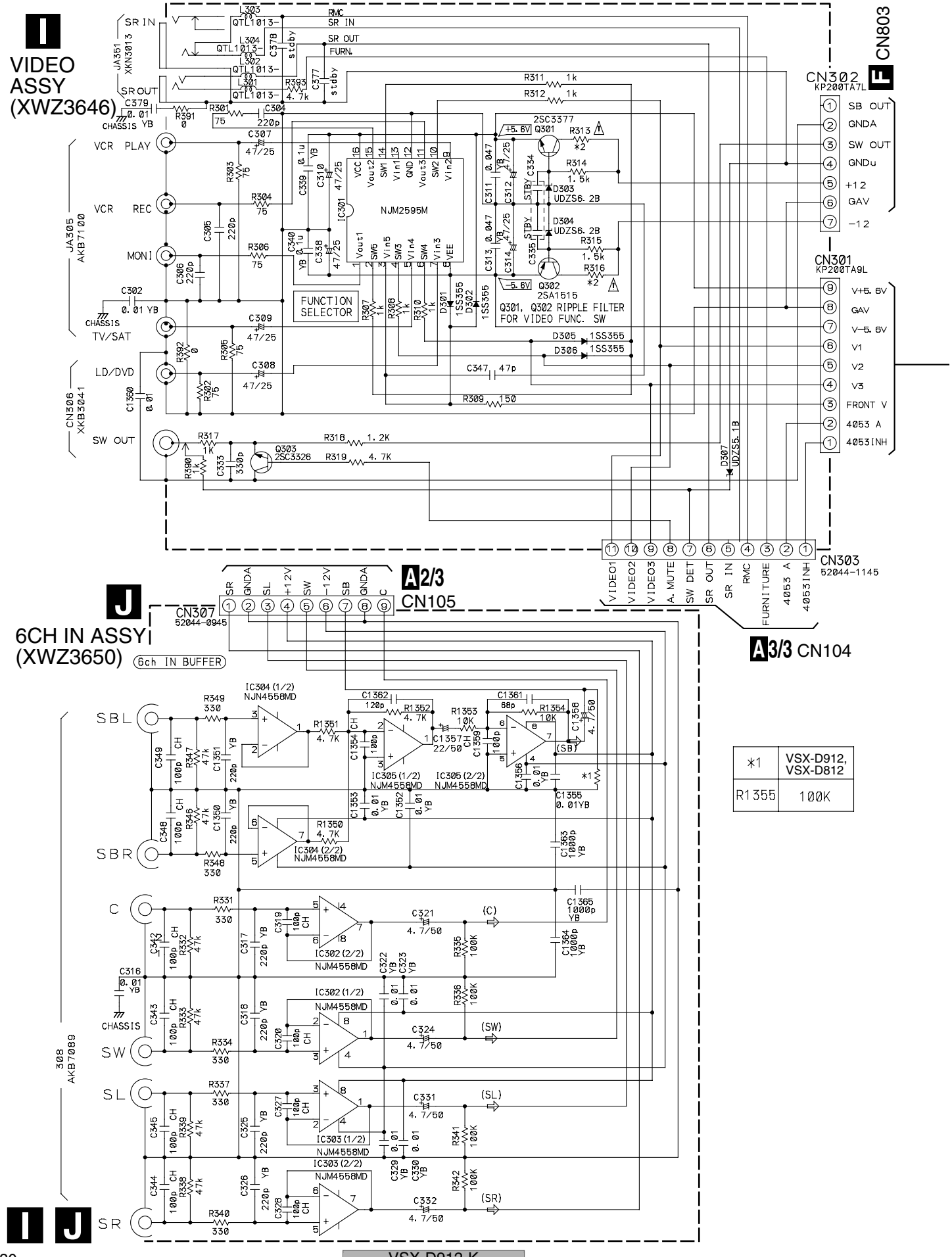

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N10 FOR IC701 AND IC702 MFD, BY ROHM CO., LTD.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491003 FOR IC853 MFD, BY LITTELFUSE INC.
TRANS3 ASSY (XWZ3687)
E
POWER TRANSFORMER
D
TRANS2 ASSY (XWZ3684)
R 1551
C2/2
S CN1575
CN751
CN752
CN753
CN604
52045-0745
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 FOR IC851 AND IC852 MFD, BY LITTELFUSE INC.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 FOR IC603 MFD, BY LITTELFUSE INC.
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010 FOR IC604, IC605, IC606, AND IC607 MFD, BY LITTELFUSE INC.
• NOTE FOR FUSE REPLACEMENT
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.
C1/2 D E

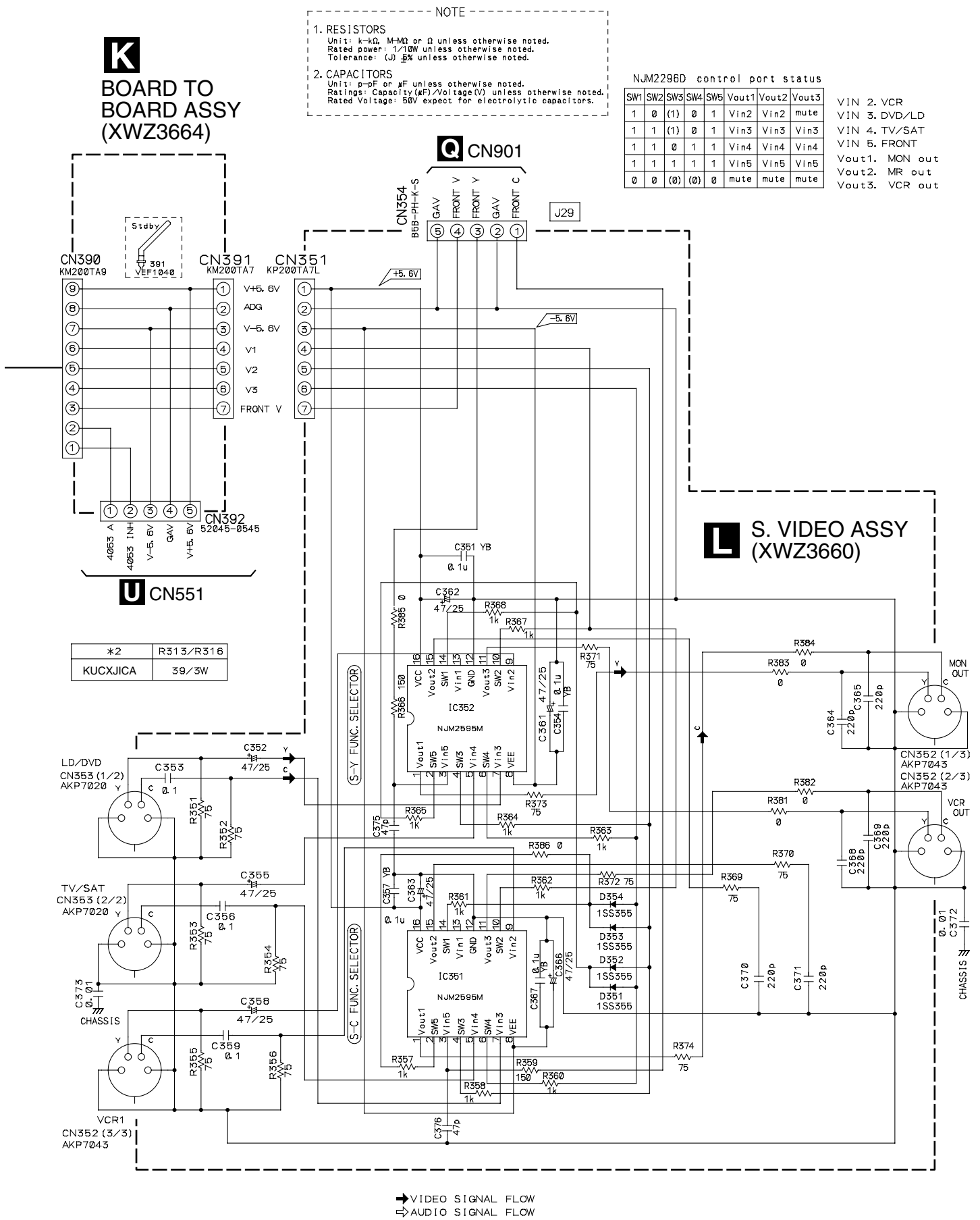
3.9 AMP & PRIMARY (2/2), REG. , AMP INPUT and TRANS1 ASSYS



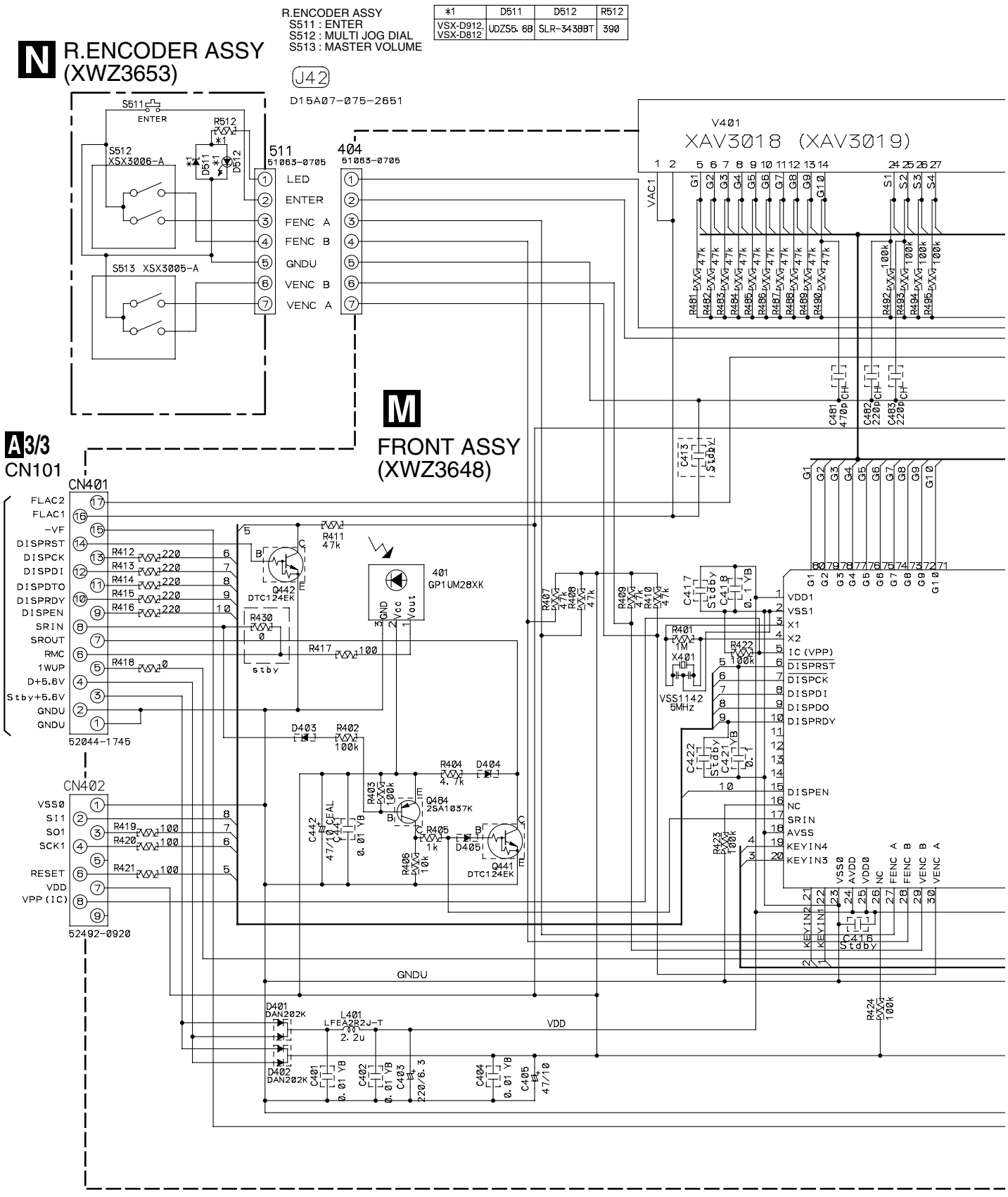

FAN MOTOR
FAN+
FAN−
FAN STOP
CN252
KM250MA3L
G AMP INPUT ASSY
(XWZ3679)
P CN891
CN254
52044-1945
A2/3 CN106
FROM INPUT ASSY
C
GNDA
GNDA
FL
GNDA
FR
GNDA
SL
GNDA
SR
GNDA
SB
A. MUTE
ATT
BOARD DETECT
O. L DET
DC DET
NECK
GNDU
C1/2 CN601
CN253
KP200TA18L
R266 100k
R265 22k
C251 47/25 NP
Q253 KRC103M
Q257 2SA933
R269 1K
R268 100K
D254 MTZJ5.1B
−12V
GNDU
+12V
CN251
52044-0345
R264 4.7K
R253 100K
R251 100K
R252 100K
R254 100K
R255 100K
R256 100K
Q251 2SC2878
R257 160K
R260 750K
R258 100K
D251 1SS133
IC251 (1/2) NJM4558MD
IC251 (2/2) NJM4558MD
R259 100K
C252 0.01 CKPU
C253 0.01 CKPU
D252 1SS133
R261 2.2K
R262 47K
C254 100/25
Q252 2SD1858X
Q254 KRA103M
Q255 KRC103M
Q256 2SC2878
R263 470
D253 MTZJ27D
R267 4.7K
C1/2
REG B
REG G
REG B
FL AC1
FL AC2
−VF
R52
27 1/2W
11.7V
D56 1SS133
D57 1SS133
RY51
XSR3003
RY51 : POWER RELAY
/KU, KC, J : JP
other model : D57
Q51
KRC101M
H
TRANS1 ASSY
(XWZ3681)
J1
J2
J1 : DB117NB0
J2 : DB618NB0
POWER TRANSFORMER
C52 0.01/AC250V ACG7020
RY51
51
AKP1060
R53
3.3kIC51
D55 S5688G
5.6V
NJM78M56FA
OUT
IN
12.2V
D51 S5688G
D52 S5688G
D53 S5688G
D54 S5688G
R54 10k D58
MTZJ5.1A
C54 47/25
C53 1000/16
IC51 : U+5V REG. IC
T51 ATT7043
C51 0.01/AC250V ACG7020
REK1087 (10A)
CN51
FU1 RKP1751
H51 H52
L51 ATF7018
LIVE
NEUTRAL
AC POWER CORD
ADG7024
C56 0.01 YX
C55 0.01 YX
C57 0.01 YX
KN51
VNF1084
R51
RCN1080
GND
C 2/2
AMP&PRIMARY ASSY
(VSX-D912: XWZ3673) (VSX-D812: XWZ3669)
SP−B RY
SP−A RY
+12V
GNDU
• NOTE FOR FUSE REPLACEMENT
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.
C 2/2 G H

3.10 VIDEO, 6CH IN, BOARD TO BOARD and S. VIDEO ASSYS




NOTE
1. RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ±5% unless otherwise noted.
2. CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.
NJM2296D control port status
SW1 SW2 SW3 SW4 SW5 Vout1 Vout2 Vout3
1 0 (1) 0 1 Vin2 Vin2 mute
1 1 (1) 0 1 Vin3 Vin3 Vin3
1 1 0 1 1 Vin4 Vin4 Vin4
1 1 1 1 1 Vin5 Vin5 Vin5
0 0 (0) (0) 0 mute mute mute
VIN 2. VCR
VIN 3. DVD/LD
VIN 4. TV/SAT
VIN 5. FRONT
Vout1. MON out
Vout2. MR out
Vout3. VCR out
K
BOARD TO BOARD ASSY (XWZ3664)
Q CN901
CN354 B5B-PH-K-S
GAV FRONT V FRONT Y GAV FRONT C
J29
Stdby
391 VEF1040
CN390 KM200TA9
CN391 KM200TA7
CN351 KP200TA7L
V+5.6V ADG V-5.6V V1 V2 V3 FRONT V
+5.6V
-5.6V
CN392 52045-0545
4053 A 4053 INH V-5.6V GAV V+5.6V
U CN551
L S. VIDEO ASSY (XWZ3660)
*2 R313/R316
KUCXJICA 39/3W
S-Y FUNC. SELECTOR
S-C FUNC. SELECTOR
IC352 NJM2595M
IC351 NJM2595M
LD/DVD CN353(1/2) AKP7020
TV/SAT CN353(2/2) AKP7020
VCR1 CN352(3/3) AKP7043
CN352(1/3) AKP7043
CN352(2/3) AKP7043
MON OUT
VCR OUT
CHASSIS
C351 YB 0.1u
C352 47/25
C353 0.1
C354 0.1u YB
C355 47/25
C356 0.1
C357 0.1u YB
C358 47/25
C359 0.1
C360 0.1u YB
C361 47/25
C362 47/25
C363 47/25
C364 220p
C365 220p
C366 47/25
C367 0.1u YB
C368 220p
C369 220p
C370 220p
C371 220p
C372 0.01
C373 0.01
C374 0.1u YB
C375 47p
C376 47p
R351 75
R352 75
R353 75
R354 75
R355 75
R356 75
R357 1k
R358 1k
R359 150
R360 1k
R361 1k
R362 1k
R363 1k
R364 1k
R365 1k
R366 150
R367 1k
R368 1k
R369 75
R370 75
R371 75
R372 75
R373 75
R374 75
R381 0
R382 0
R383 0
R384 0
R385 0
R386 0
D351 1SS355
D352 1SS355
D353 1SS355
D354 1SS355
VIDEO SIGNAL FLOW
AUDIO SIGNAL FLOW

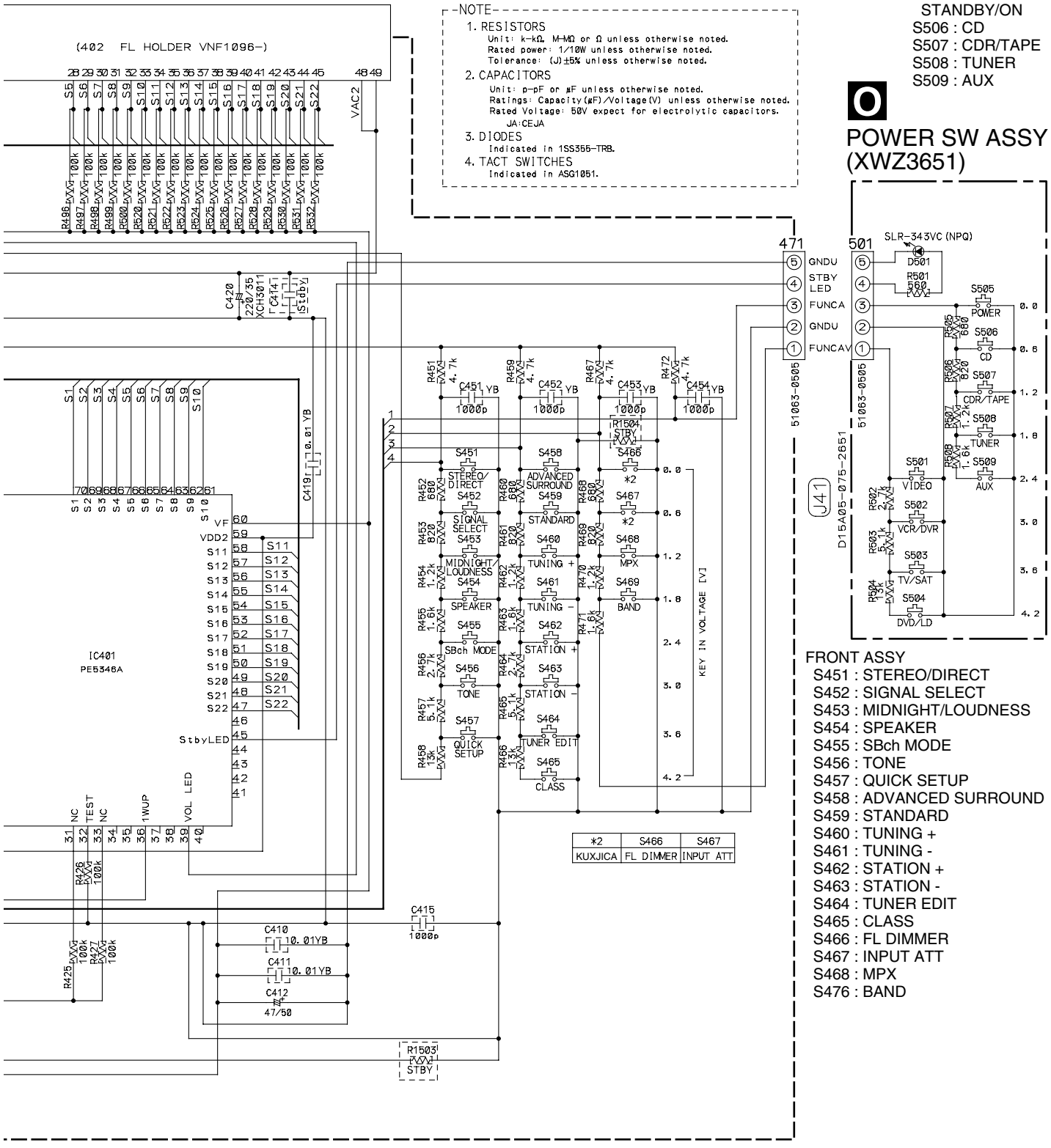
3.11 FRONT, R. ENCODER and POWER SW ASSYS



POWER SW ASSY
S501 : VIDEO
S502 : VCR/DVR
S503 : TV/SAT
S504 : DVD/LD
S505 : POWER
STANDBY/ON
S506 : CD
S507 : CDR/TAPE
S508 : TUNER
S509 : AUX

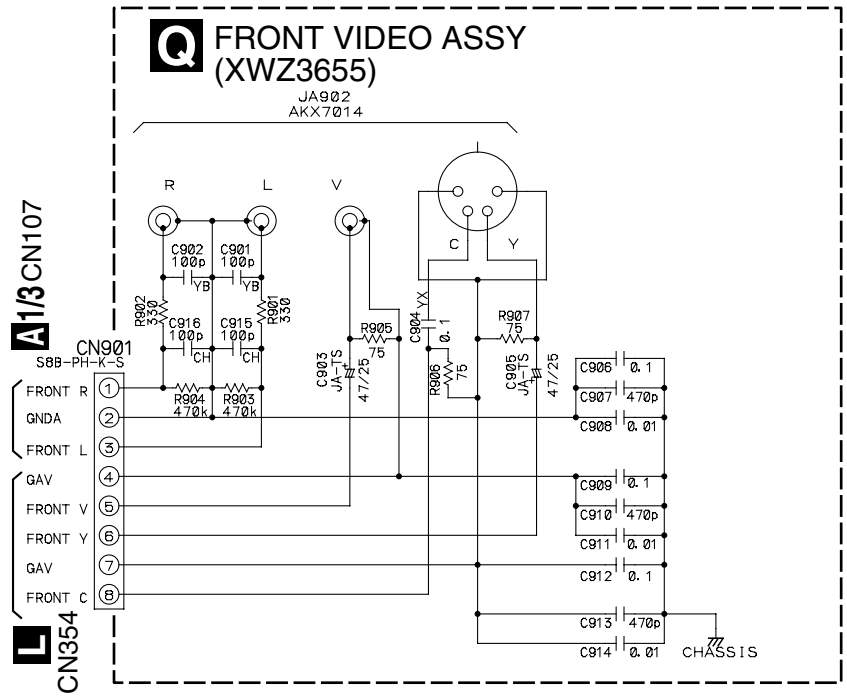
O

POWER SW ASSY (XWZ3651)



FRONT ASSY
S451 : STEREO/DIRECT
S452 : SIGNAL SELECT
S453 : MIDNIGHT/LOUDNESS
S454 : SPEAKER
S455 : SBch MODE
S456 : TONE
S457 : QUICK SETUP
S458 : ADVANCED SURROUND
S459 : STANDARD
S460 : TUNING +
S461 : TUNING -
S462 : STATION +
S463 : STATION -
S464 : TUNER EDIT
S465 : CLASS
S466 : FL DIMMER
S467 : INPUT ATT
S468 : MPX
S476 : BAND

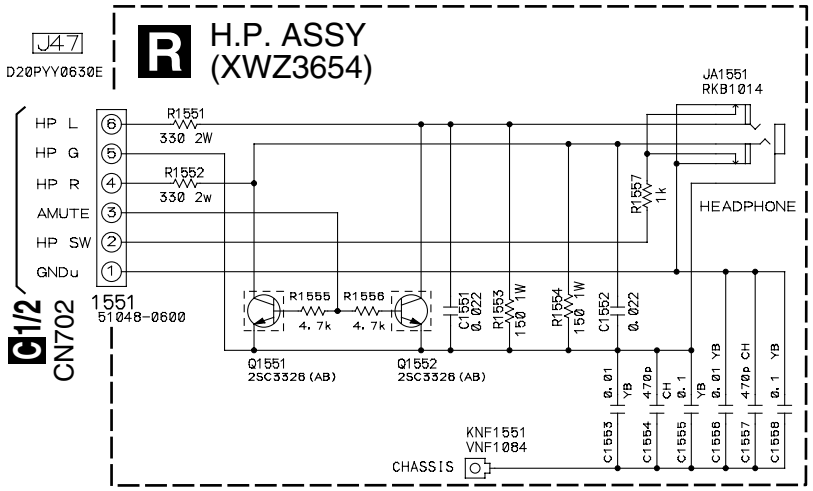
3.12 TRANS4, F.VIDEO, H.P., PRE., D.IN, COMP. and F.OPT&MIC ASSYS

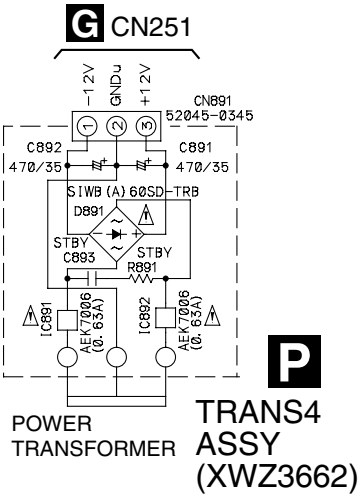


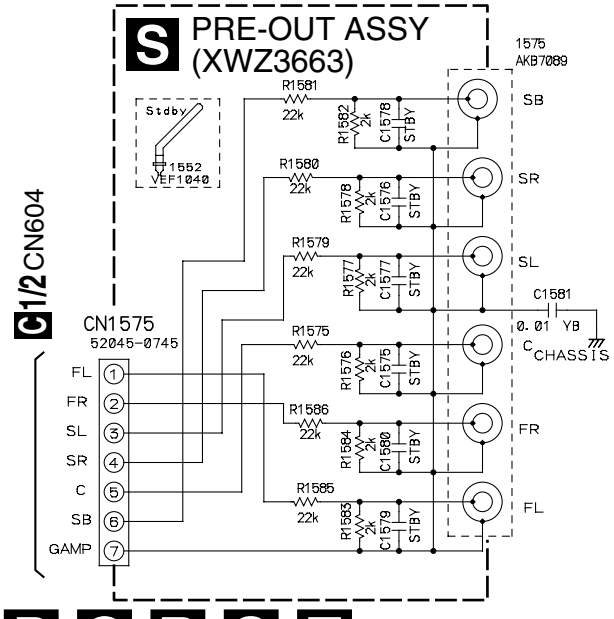
NOTE

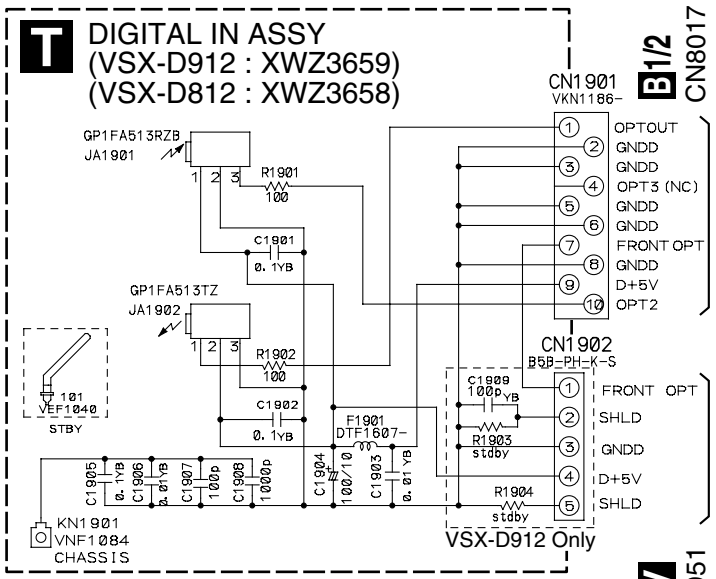
1. RESISTORS
   Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
   Rated power: 1/10W unless otherwise noted.
   Tolerance: (J) ±5% unless otherwise noted.
2. CAPACITORS
   Unit: p-pF or µF unless otherwise noted.
   Ratings: Capacity(µF)/Voltage(V) unless otherwise noted.
   Rated Voltage: 50V expect for electrolytic capacitors.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.630 FOR IC891 AND IC892 MFD, BY LITTELFUSE INC.

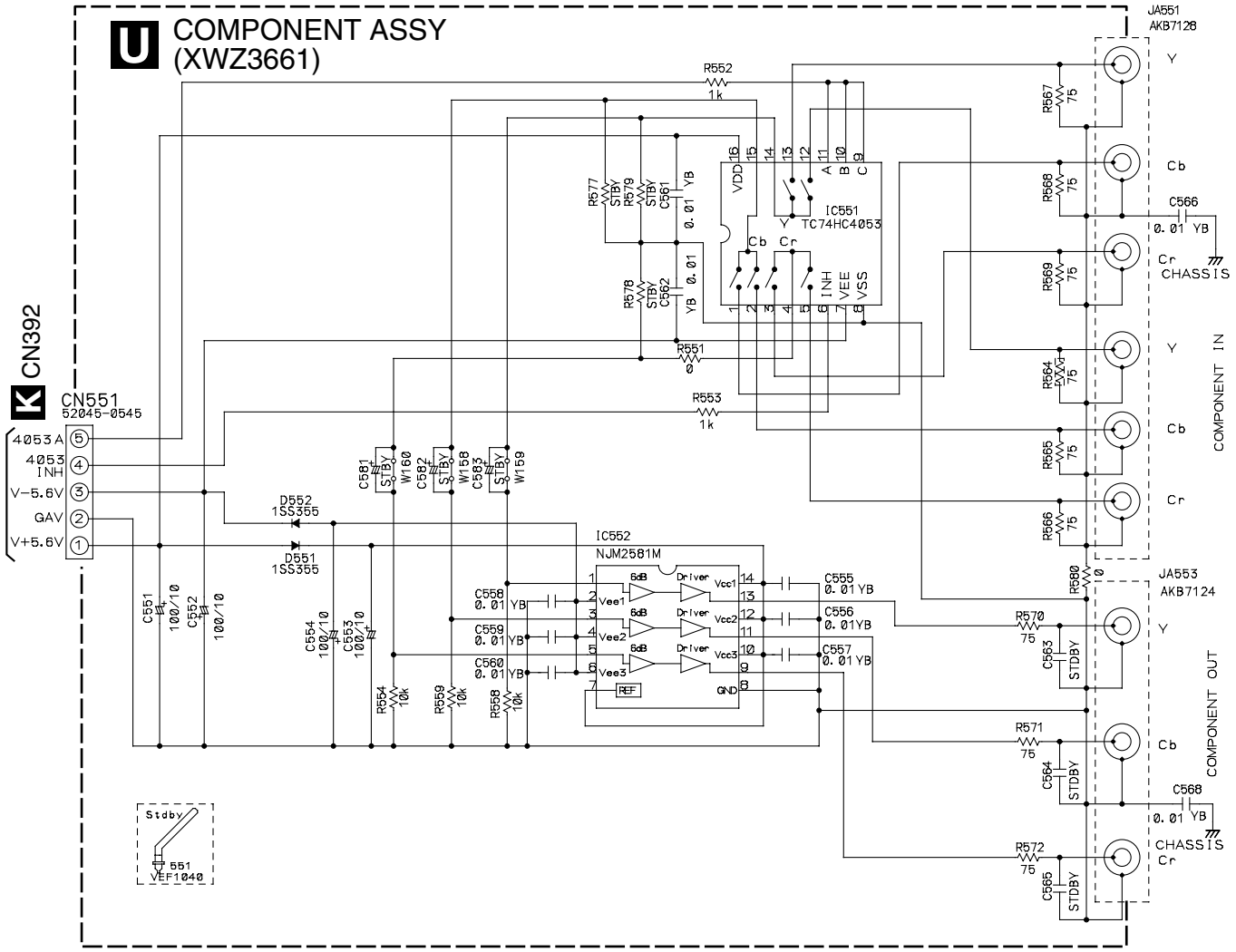


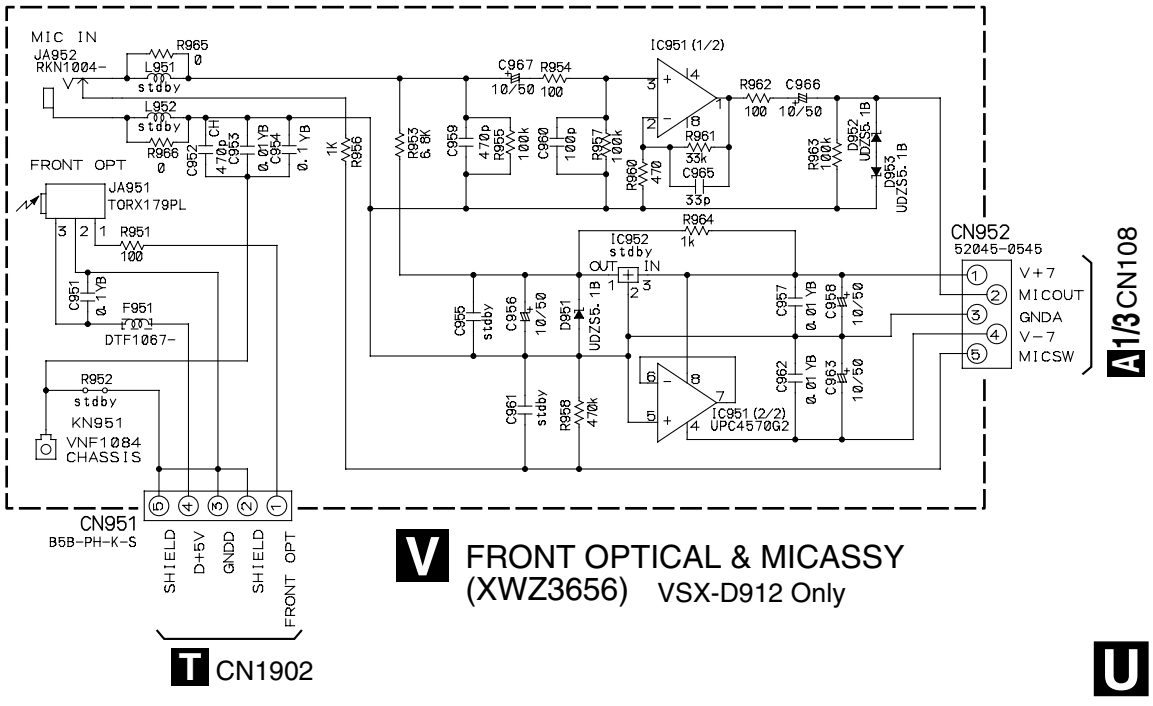






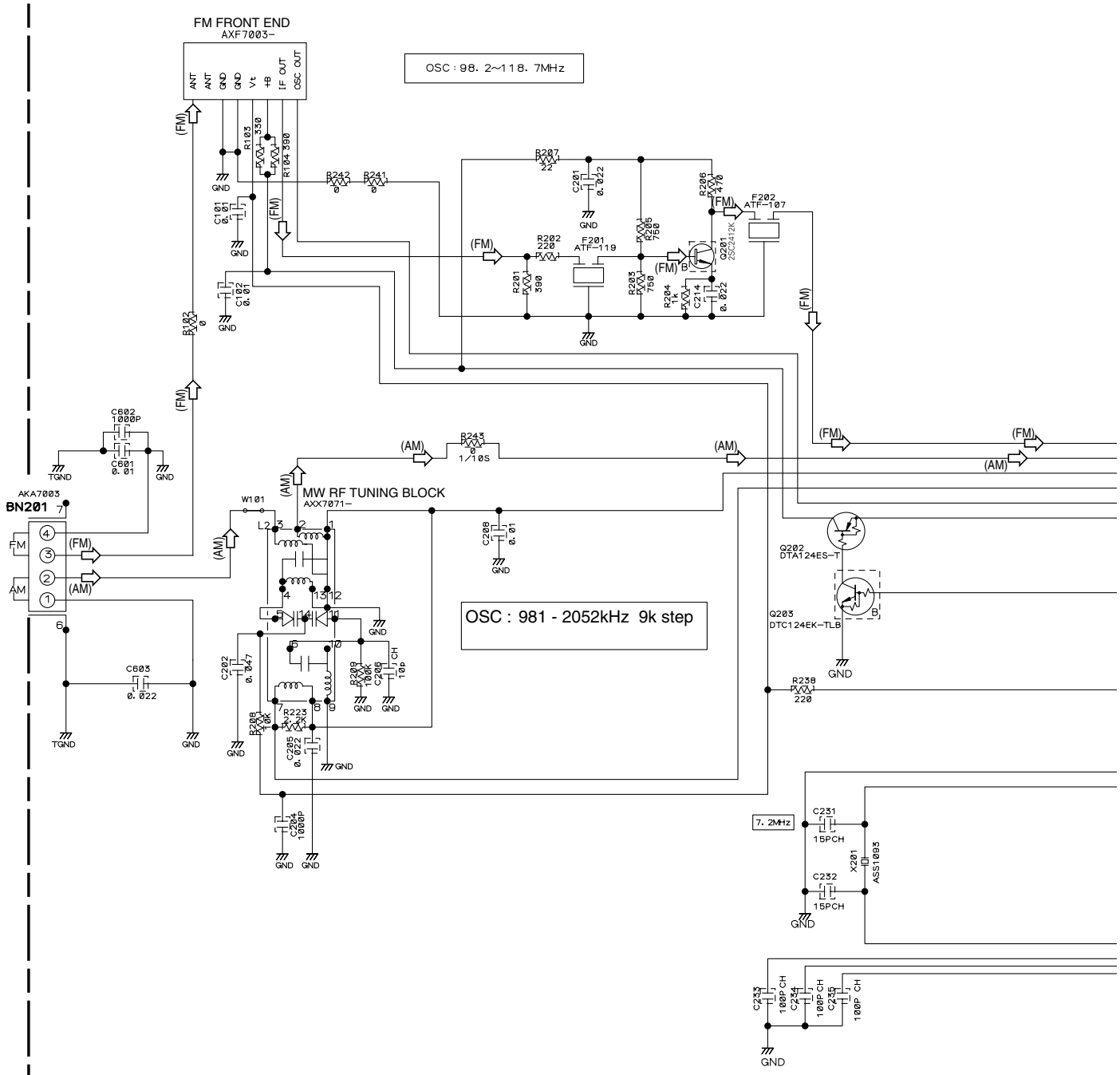
P Q R S T


U COMPONENT ASSY
(XWZ3661)
K CN392
CN551
52045-0545
4053A
4053 INH
V-5.6V
GAV
V+5.6V
IC551
TC74HC4053
IC552
NJM2581M
JA551
AKB7126
JA553
AKB7124
COMPONENT IN
COMPONENT OUT
CHASSIS
Stdby
551
VEF1040


MIC IN
JA952
RKN1004-
FRONT OPT
JA951
TORX179PL
DTF1067-
KN951
VNF1084
CHASSIS
IC951 (1/2)
IC951 (2/2)
UPC4570G2
IC952
CN952
52045-0545
V+7
MICOUT
GNDA
V-7
MICSW
A 1/3 CN108
CN951
B5B-PH-K-S
SHIELD
D+5V
GNDD
SHIELD
FRONT OPT
T CN1902
V FRONT OPTICAL & MICASSY
(XWZ3656) VSX-D912 Only
U V

3.13 FM/AM TUNER MODULE

W FM/AM TUNER MODULE (AXQ7231)



Notes

: The power supply is shown with the marked box.

1. RESISTORS

Indicated in Ω, 1/16W±5% Tolerance unless otherwise noted K;KΩ, M;MΩ.

2. CAPACITORS

Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P;PF.

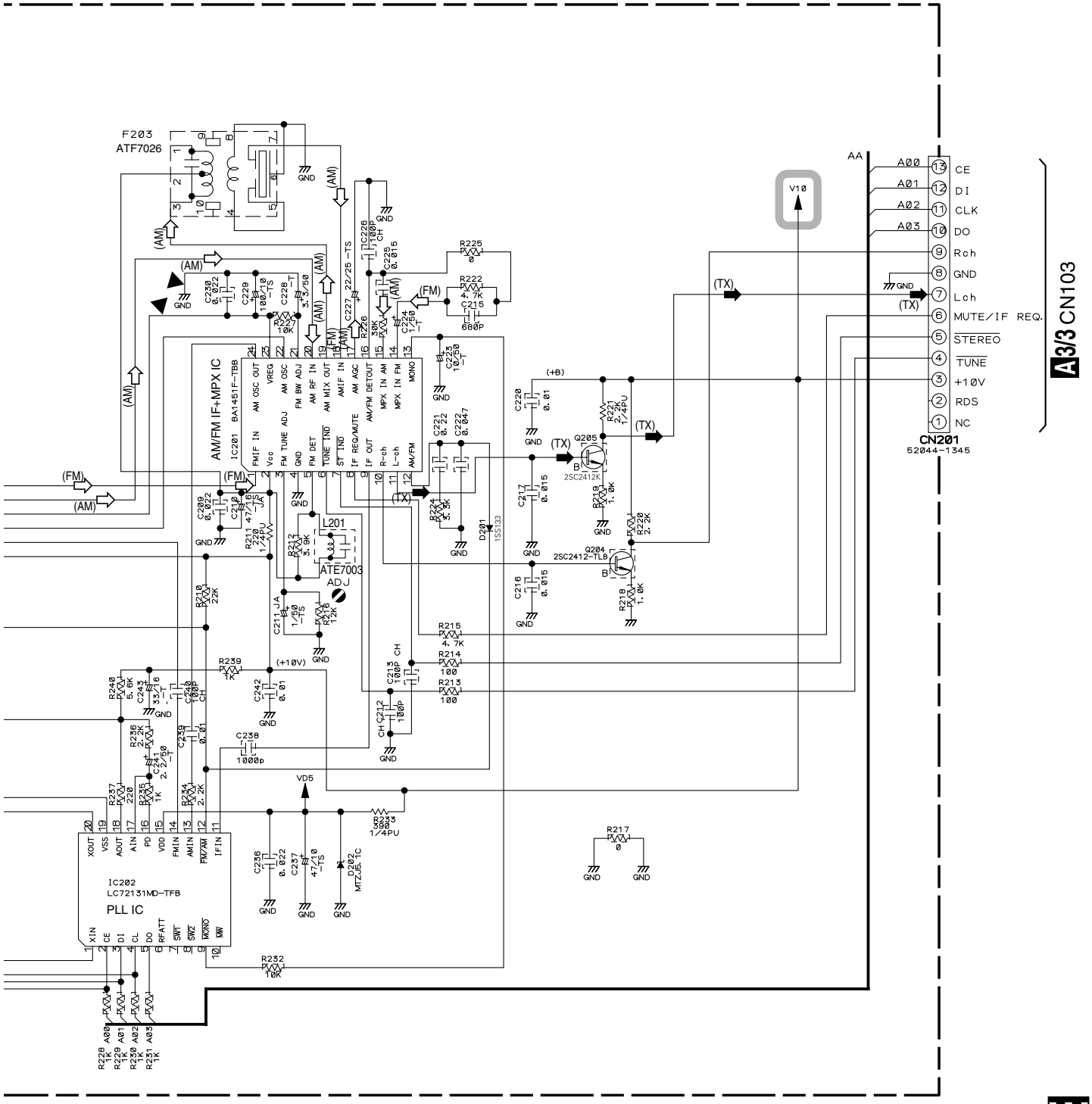
3. DIODES

No mark diode is 1SS133.

(TX) : AUDIO SIGNAL ROUTE (TUNER)

(AM) : AM SIGNAL ROUTE

(FM) : FM SIGNAL ROUTE



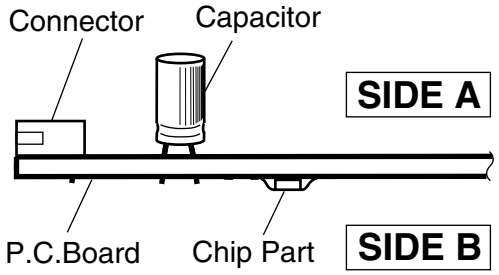
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

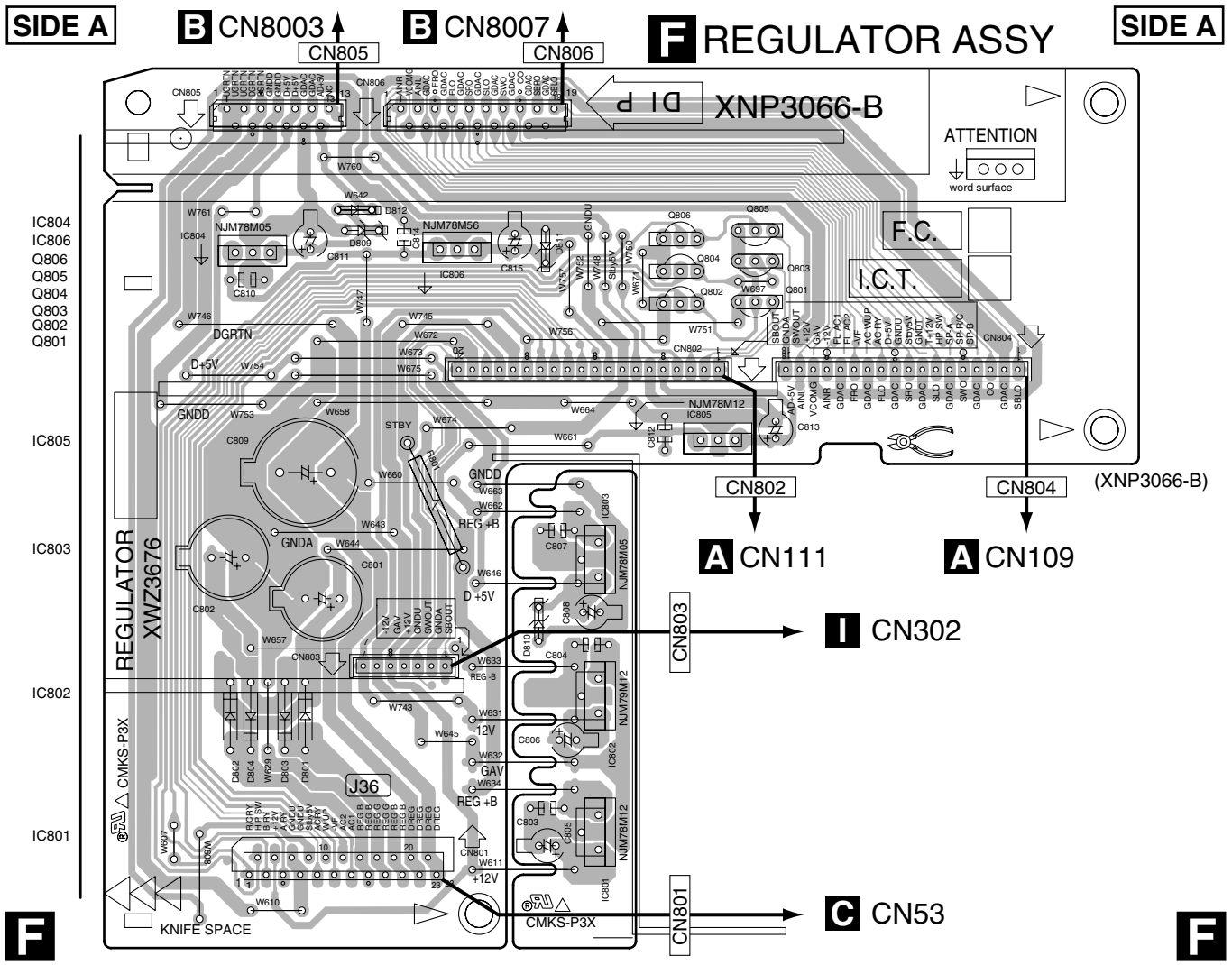
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

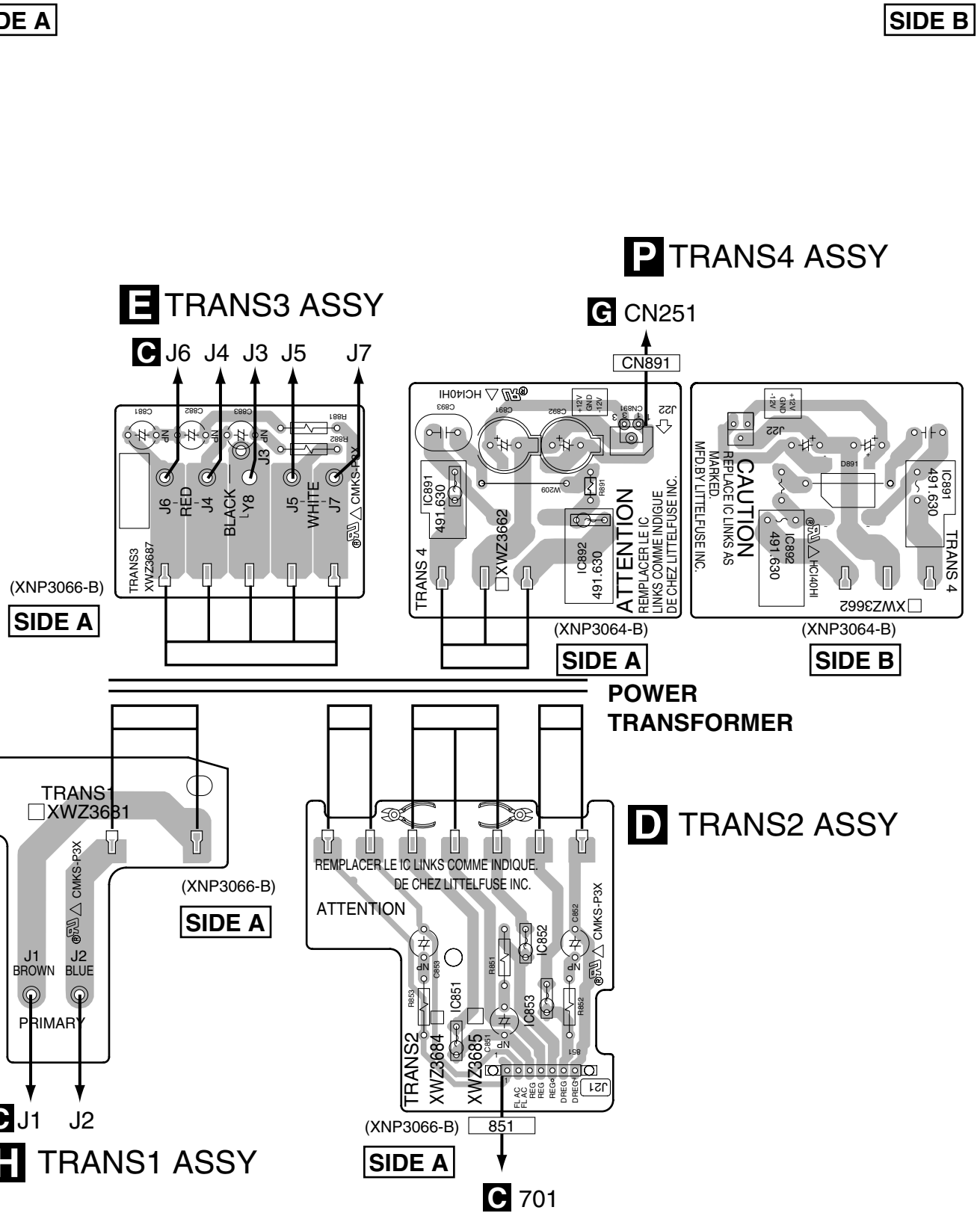
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



4.1 REGULATOR ASSY

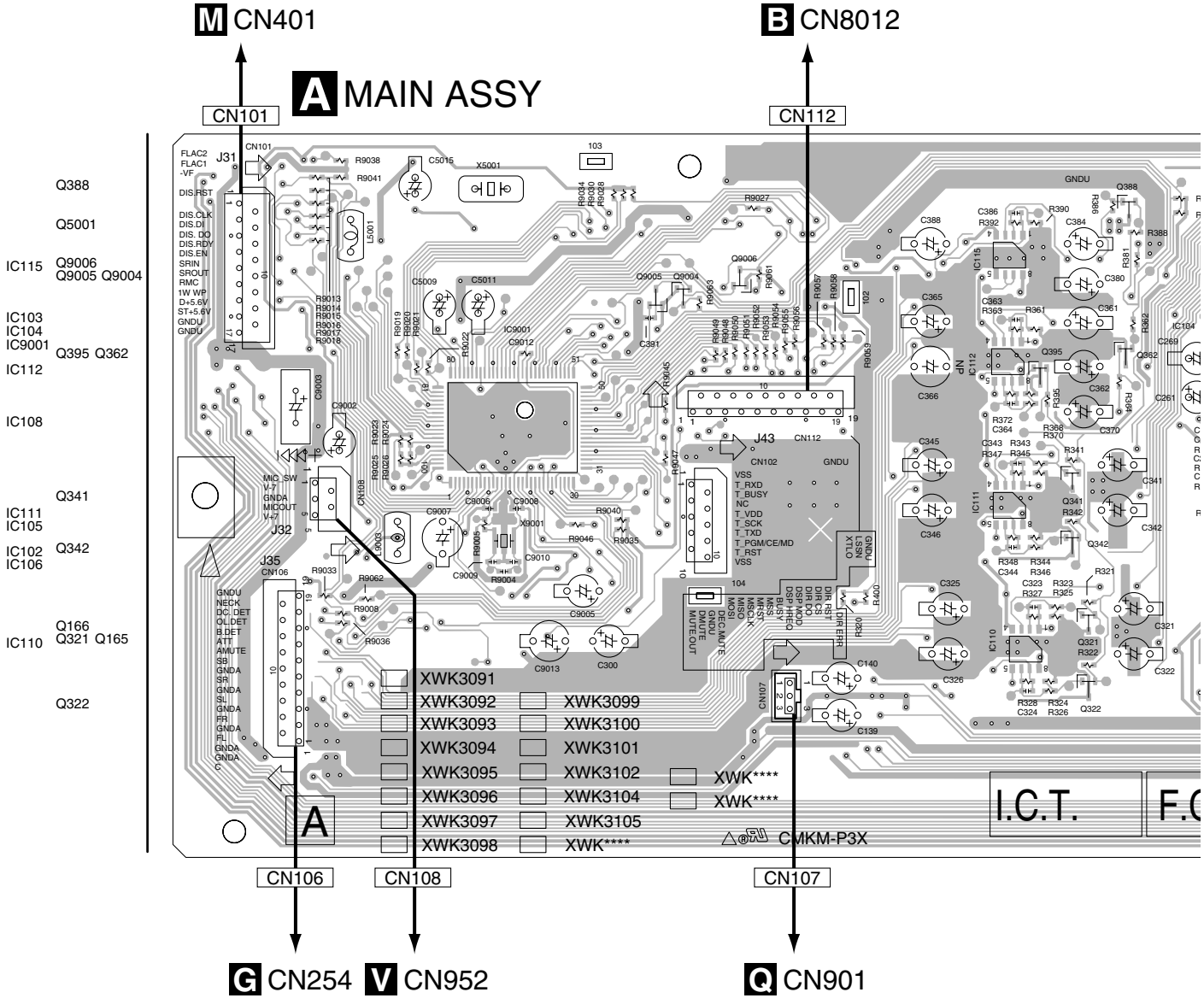


4.2 TRANS2, TRANS3, TRANS1 and TRANS4 ASSYS

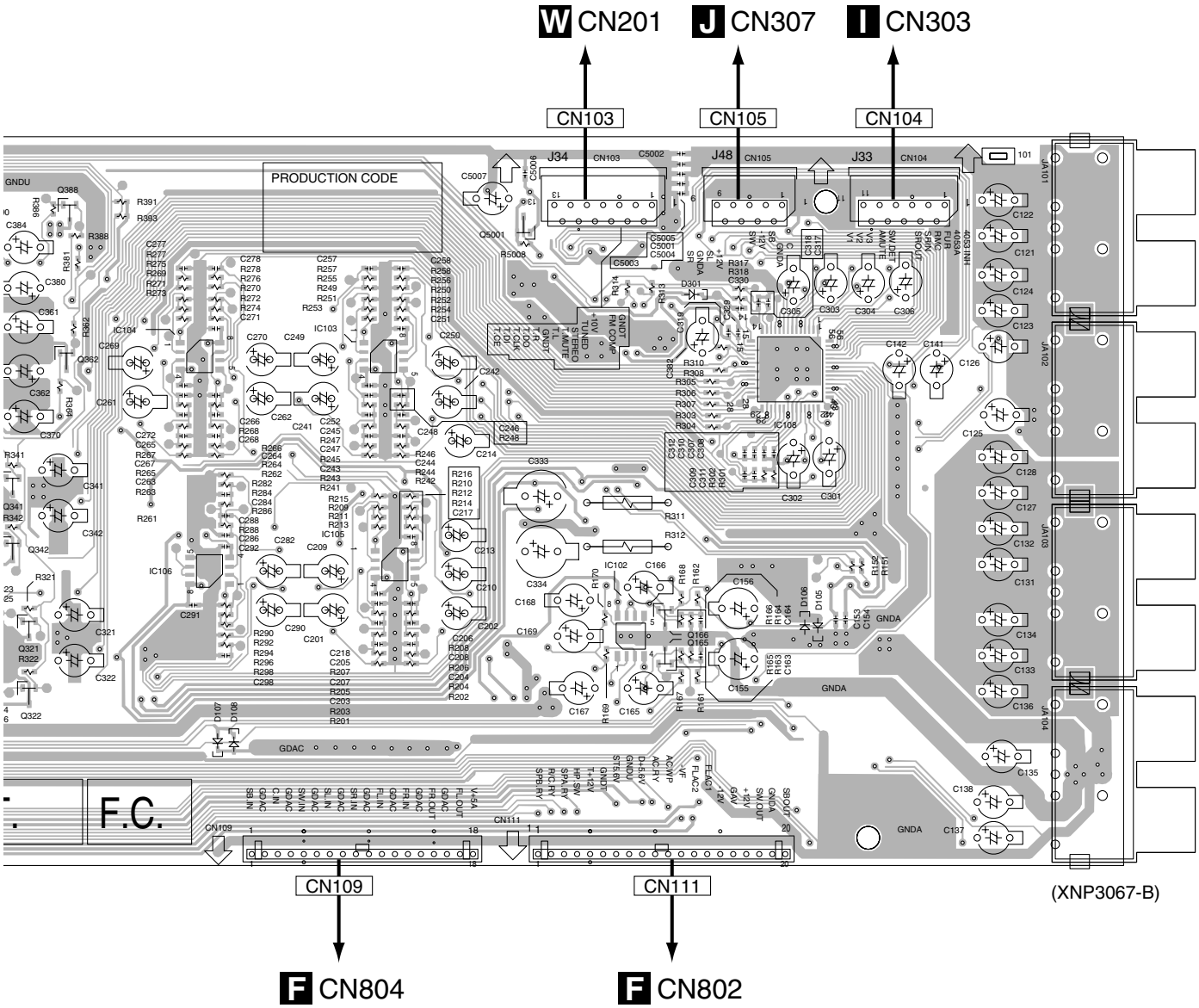


4.3 MAIN ASSY

SIDE A

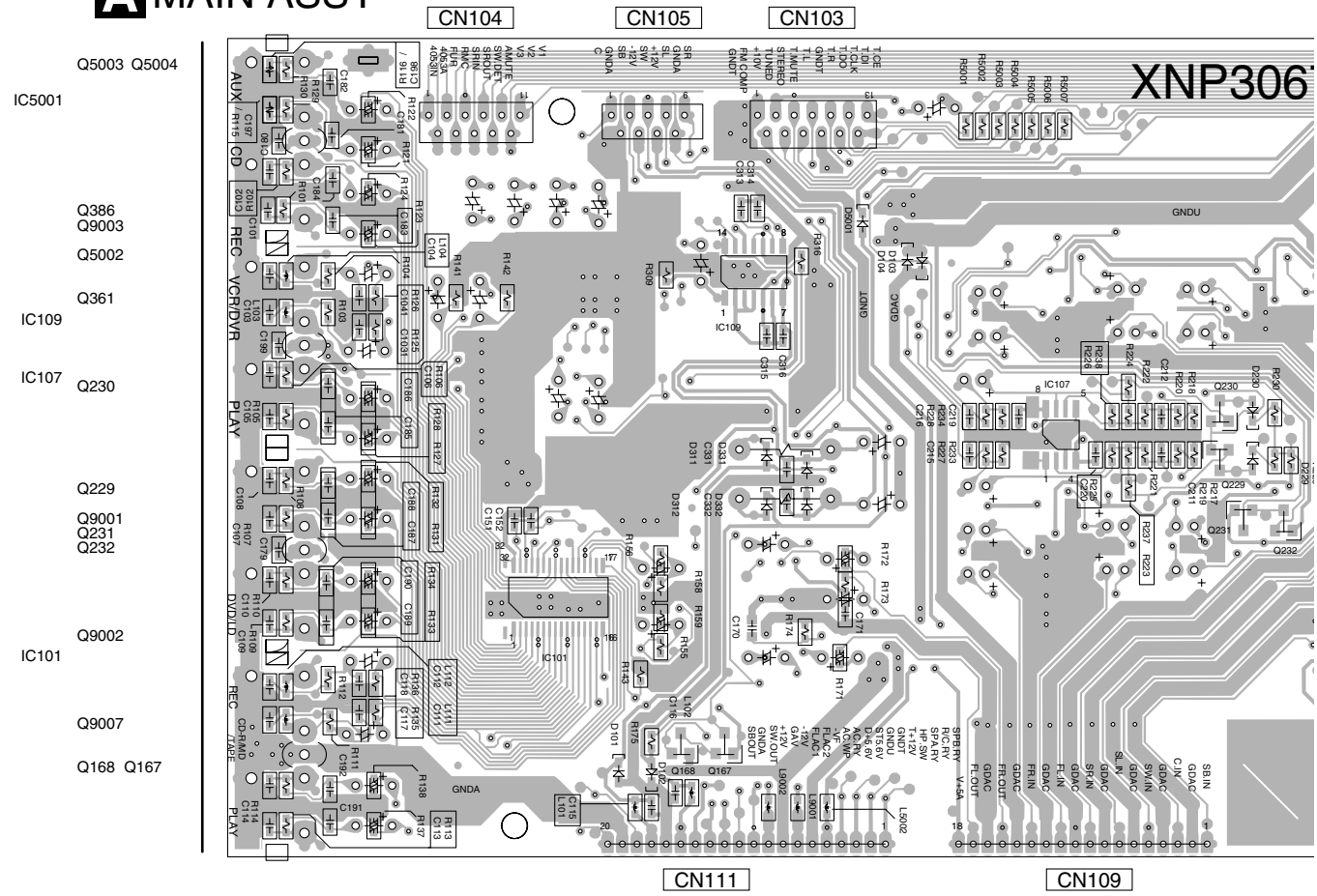


SIDE A

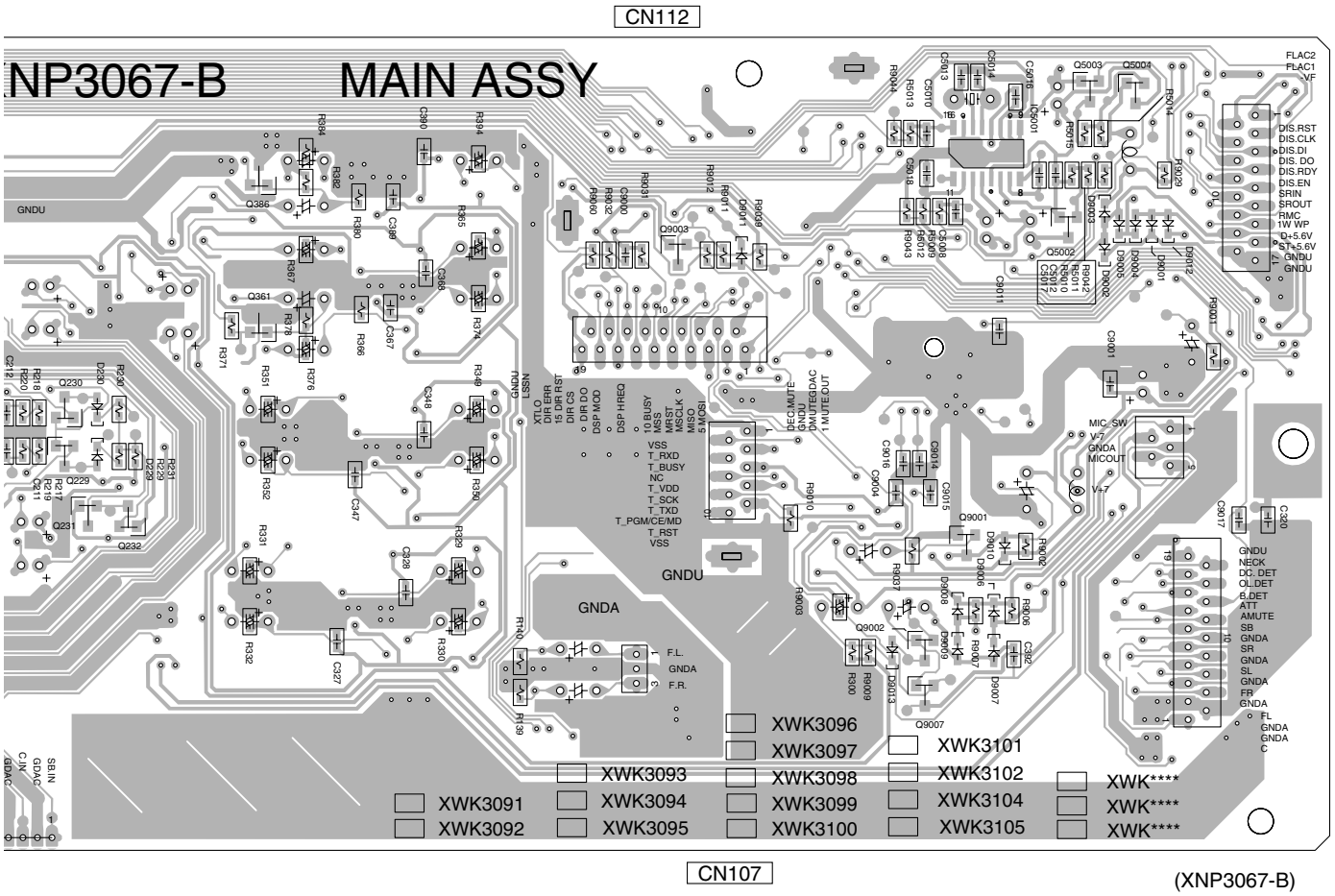

W CN201
J CN307
I CN303
CN103
CN105
CN104
PRODUCTION CODE
J34 CN103
J48 CN105
J33 CN104
CN109
CN111
CN109
CN111
F CN804
F CN802
(XNP3067-B)

SIDE B

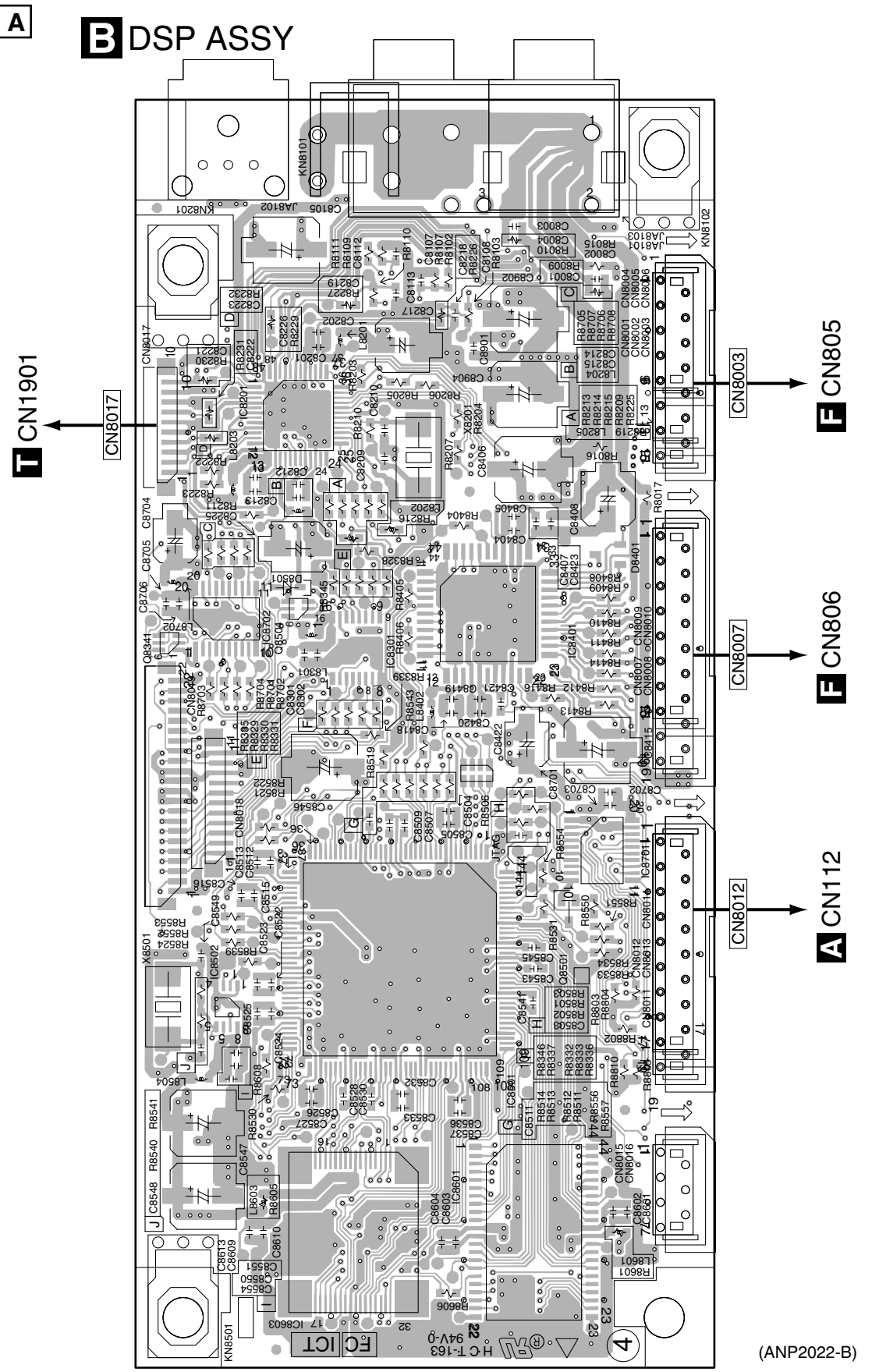
A MAIN ASSY



SIDE B


CN112
XNP3067-B MAIN ASSY
CN101
CN108
CN106
CN107
(XNP3067-B)
XWK3091
XWK3092
XWK3093
XWK3094
XWK3095
XWK3096
XWK3097
XWK3098
XWK3099
XWK3100
XWK3101
XWK3102
XWK3104
XWK3105
XWK****
XWK****
XWK****

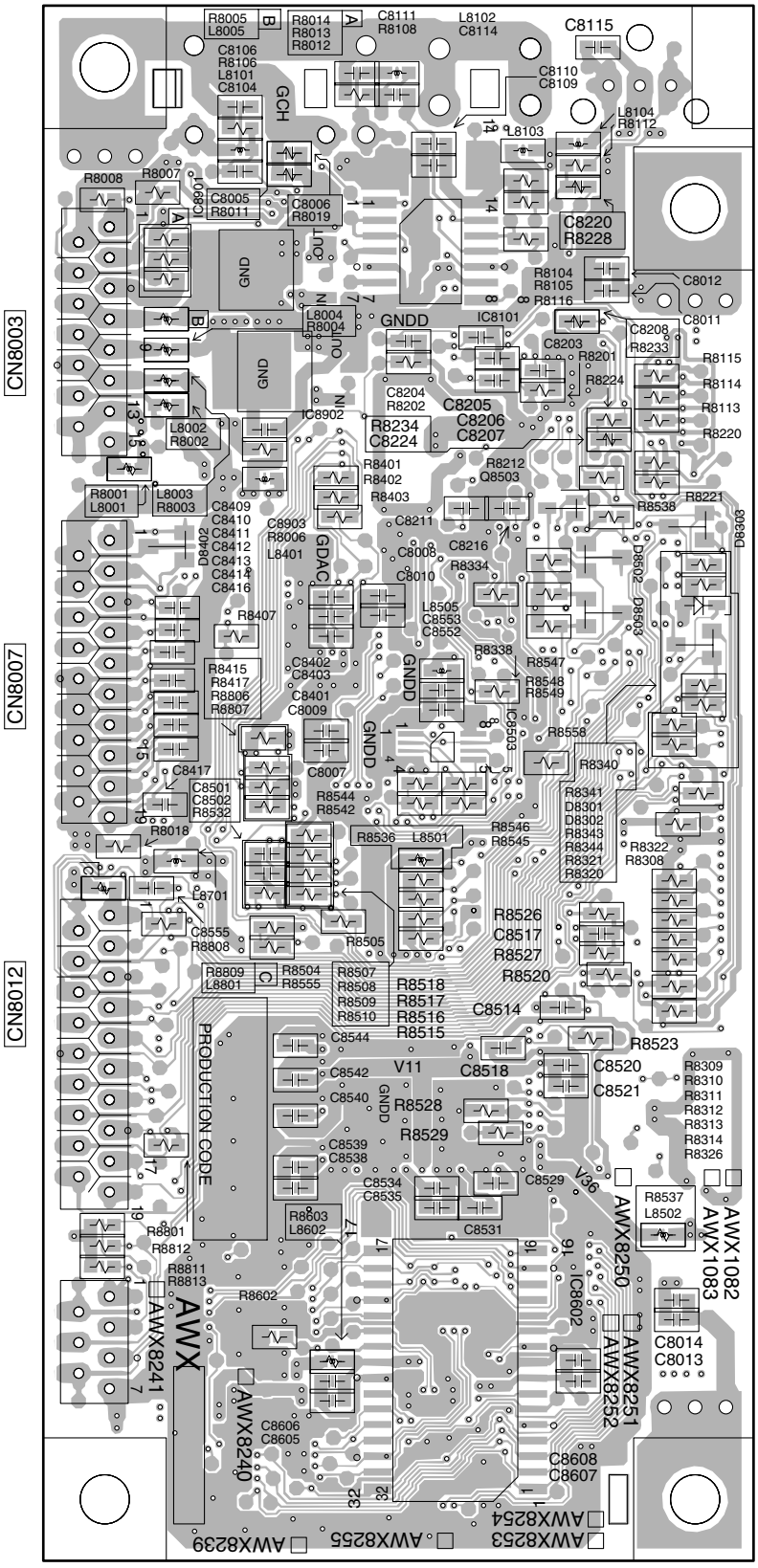
4.4 DSP ASSY


SIDE A
B DSP ASSY
SIDE A
T CN1901
CN8017
CN8003
F CN805
CN8007
F CN806
CN8012
A CN112
(ANP2022-B)
Q8341
Q8504
Q8501
IC8502
IC8201
IC8702
IC8603
IC8301
IC8601
IC8501
IC8401
IC8701

SIDE B

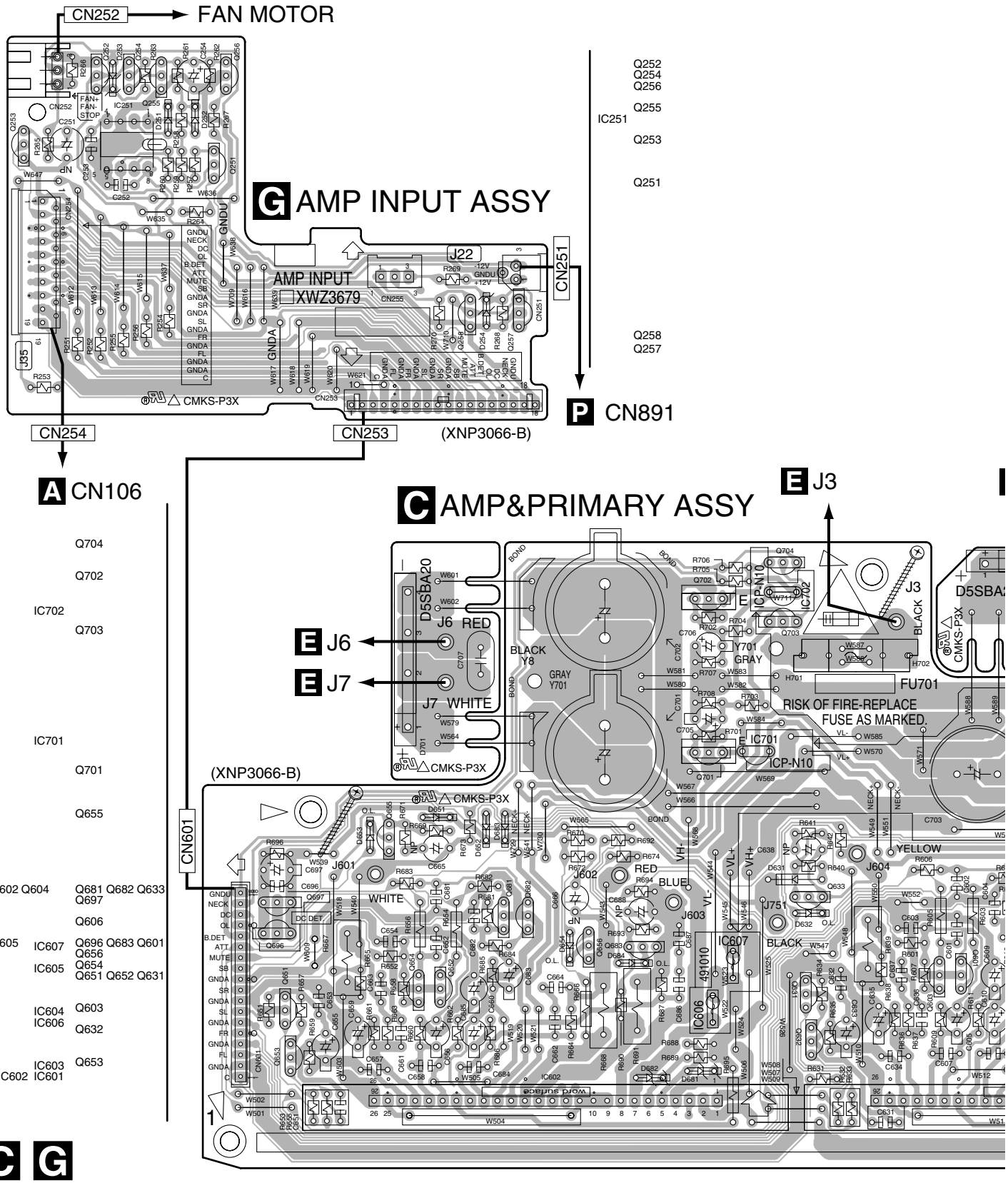
B DSP ASSY

SIDE B

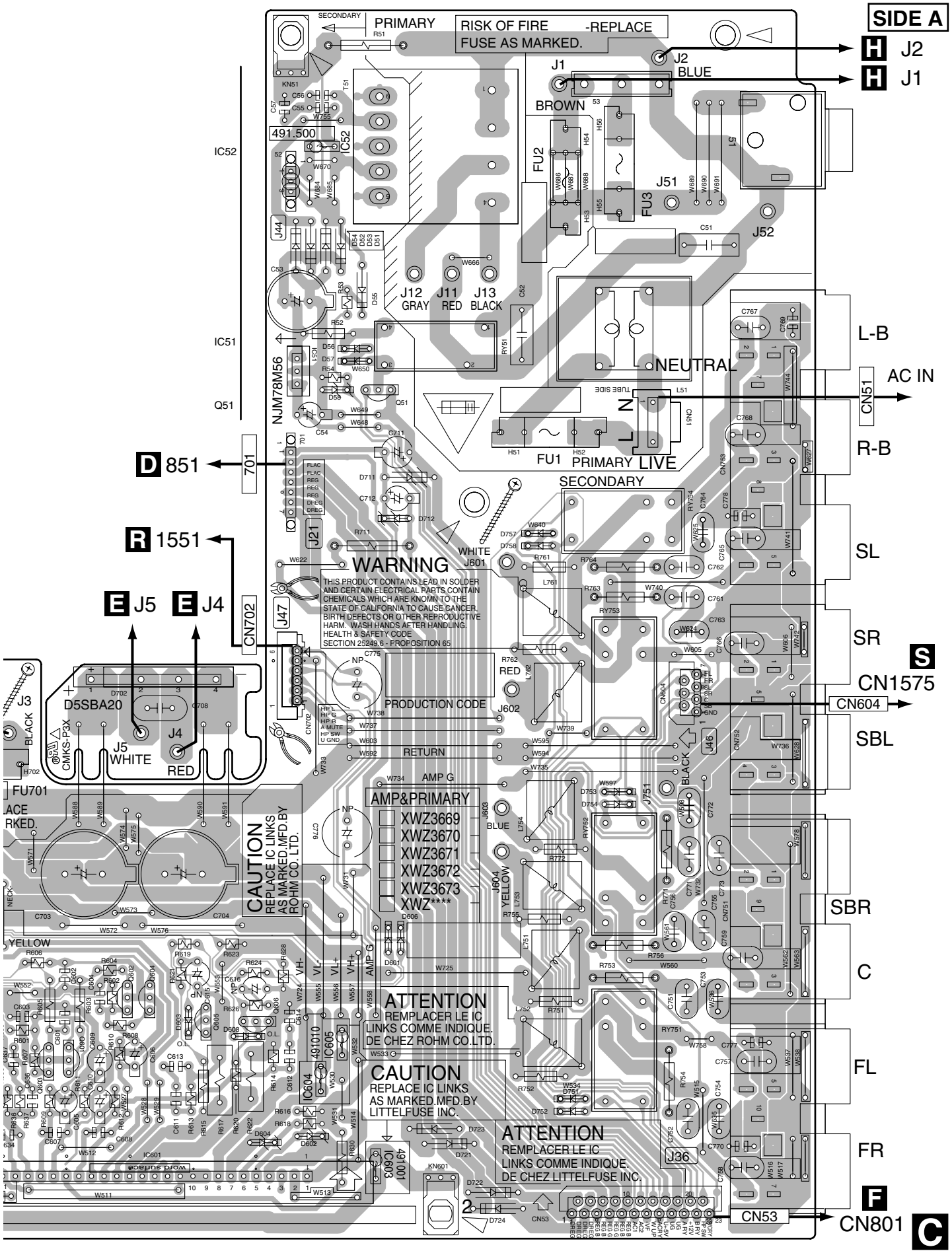


4.5 AMP & PRIMARY and AMP INPUT ASSYS

SIDE A

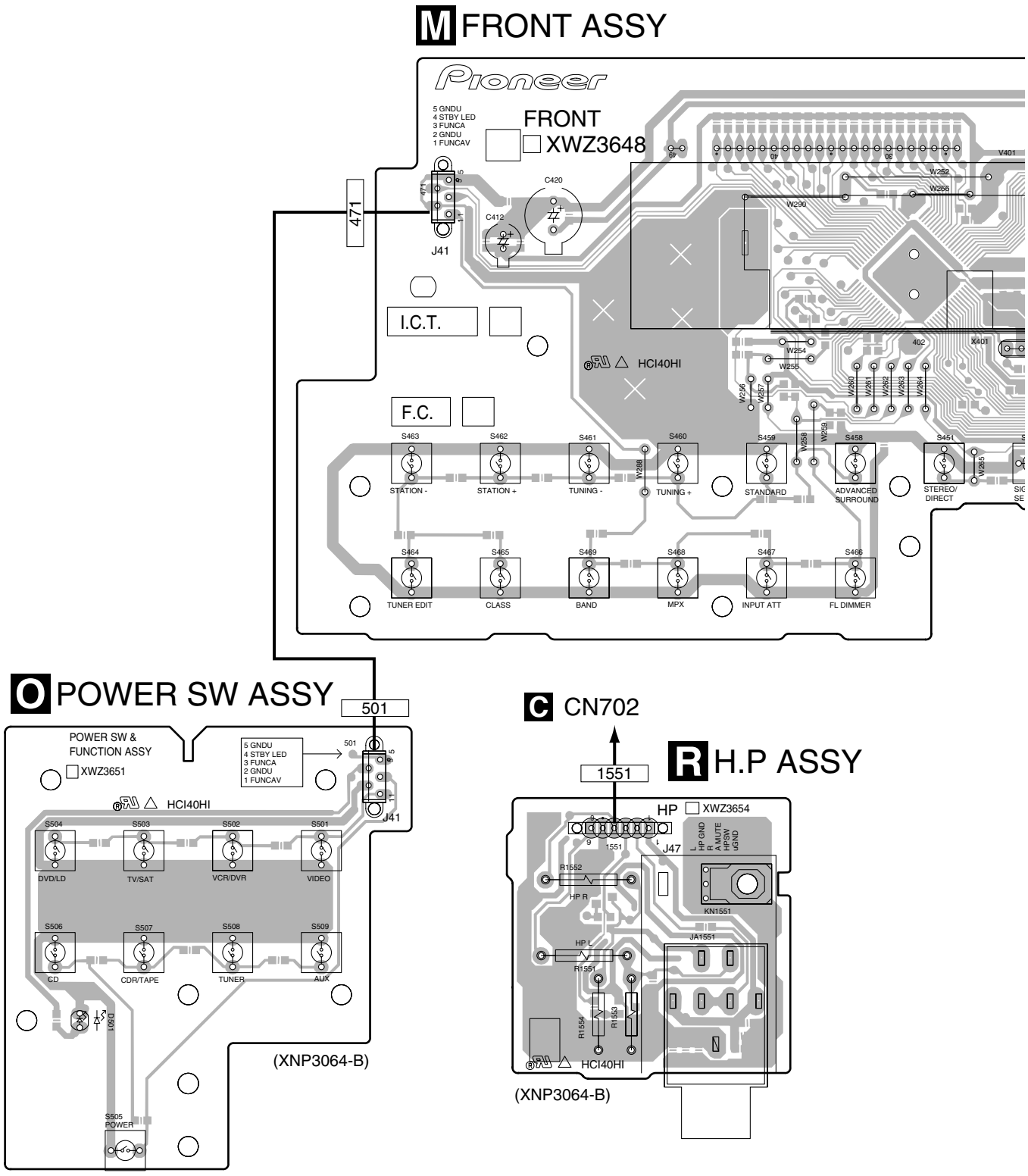


C G

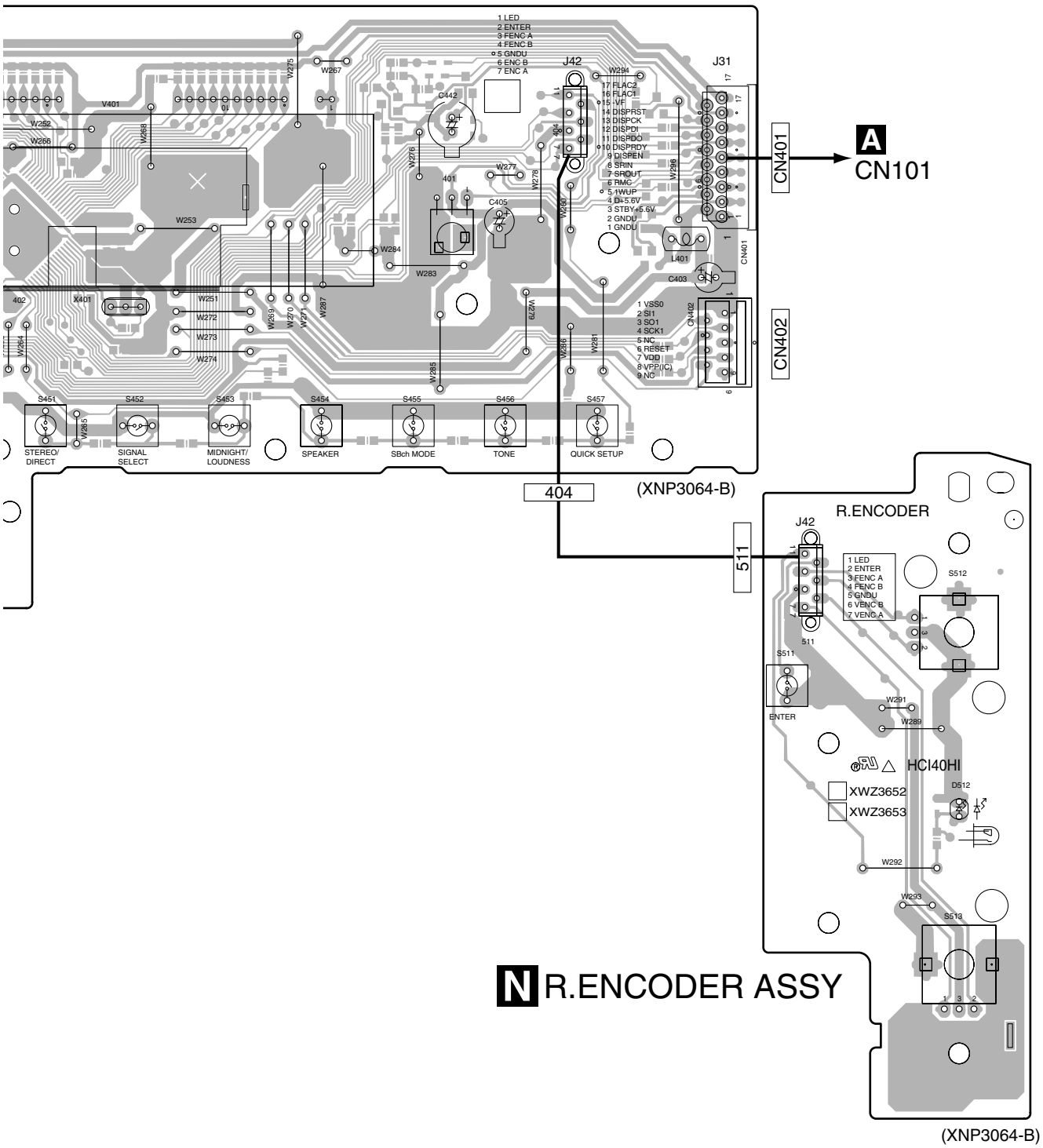

SIDE A
H J2
H J1
J2 BLUE
J1
BROWN
RISK OF FIRE -REPLACE FUSE AS MARKED.
PRIMARY
SECONDARY
L-B
AC IN
CN51
R-B
SL
SR
S
CN1575
CN604
SBL
SBR
C
FL
FR
F
CN801
CN53
D 851
R 1551
E J5
E J4
CN702
J3
BLACK
J5
WHITE
J4
RED
D5SBA20
CMKS-P3X
FU701
FU1
FU2
FU3
J51
J52
NEUTRAL
LIVE
L
N
NJM78M56
IC52
IC51
Q51
491.500
J12 GRAY
J11 RED
J13 BLACK
WHITE J601
RED J602
BLUE J603
YELLOW J604
BLACK J751
WARNING
THIS PRODUCT CONTAINS LEAD IN SOLDER AND CERTAIN ELECTRICAL PARTS CONTAIN CHEMICALS WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. WASH HANDS AFTER HANDLING. HEALTH & SAFETY CODE SECTION 25249.6 - PROPOSITION 65
PRODUCTION CODE
AMP&PRIMARY
XWZ3669
XWZ3670
XWZ3671
XWZ3672
XWZ3673
XWZ****
CAUTION
REPLACE IC LINKS AS MARKED.MFD.BY ROHM CO. LTD.
ATTENTION
REMPLACER LE IC LINKS COMME INDIQUE. DE CHEZ ROHM CO.LTD.
CAUTION
REPLACE IC LINKS AS MARKED.MFD.BY LITTELFUSE INC.
ATTENTION
REMPLACER LE IC LINKS COMME INDIQUE. DE CHEZ LITTELFUSE INC.
IC604 491010
IC603 491001
IC601
KN601
RETURN
AMP G
C
A
B
D
E
F

4.6 FRONT, R. ENCODER, POWER SW and H. P. ASSYS

SIDE A

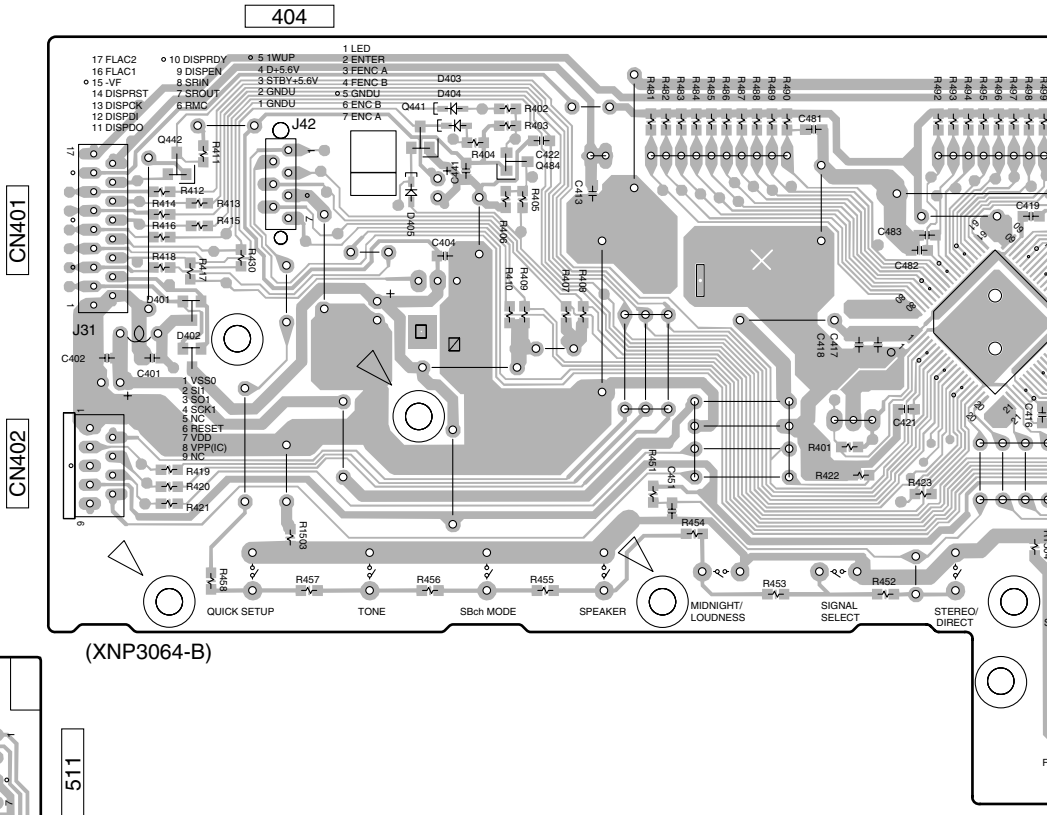


SIDE A


1 LED
2 ENTER
3 FENC A
4 FENC B
5 GNDU
6 ENC B
7 ENC A
J42
J31
W294
17 FLAC2
16 FLAC1
15 VF
14 DISPRST
13 DISPCK
12 DISPDI
11 DISPDO
10 DISPRDY
9 DISPEN
8 SRIN
7 SROUT
6 RMC
5 !WUP
4 D+5.6V
3 STBY+5.6V
2 GNDU
1 GNDU
CN401
A
CN101
CN402
1 VSS0
2 SI1
3 SO1
4 SCK1
5 NC
6 RESET
7 VDD
8 VPP/(C)
9 NC
S451
S452
S453
S454
S455
S456
S457
STEREO/ DIRECT
SIGNAL SELECT
MIDNIGHT/ LOUDNESS
SPEAKER
SBch MODE
TONE
QUICK SETUP
404
(XNP3064-B)
511
R.ENCODER
J42
1 LED
2 ENTER
3 FENC A
4 FENC B
5 GNDU
6 VENC B
7 VENC A
S512
S511
ENTER
W291
W289
HCI40HI
XWZ3652
XWZ3653
D512
W292
W293
S513
N R.ENCODER ASSY
(XNP3064-B)

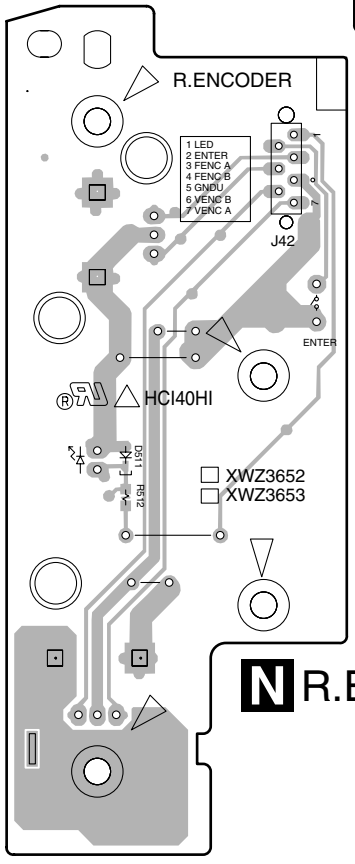
SIDE B

M FRONT ASSY



(XNP3064-B)

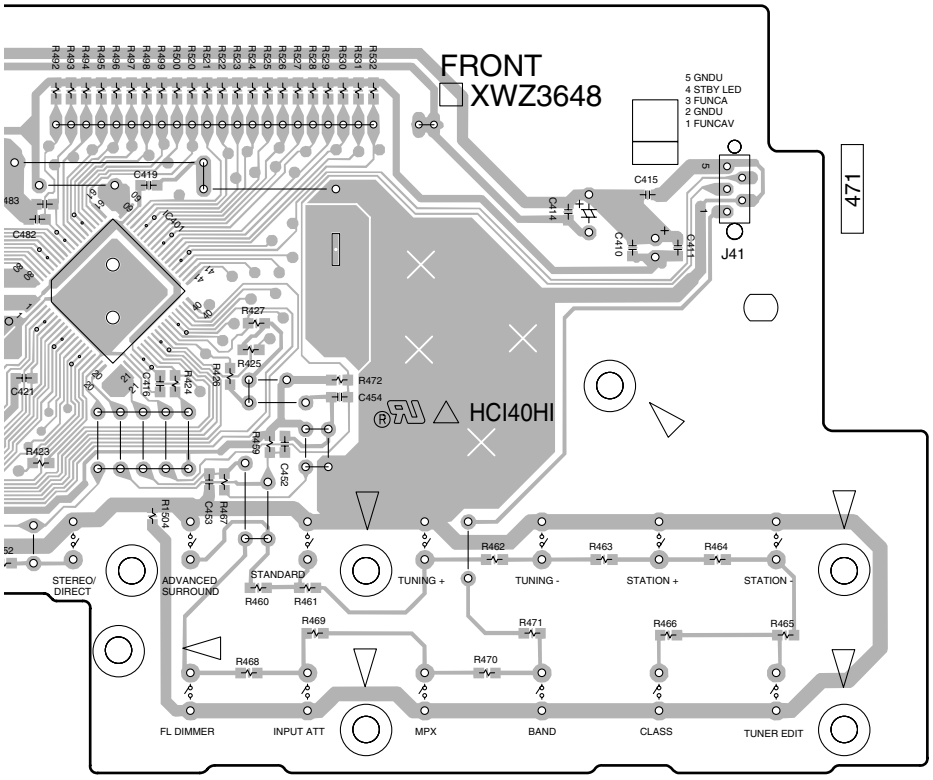
N R.ENCODER ASSY



(XNP3064-B)

M N

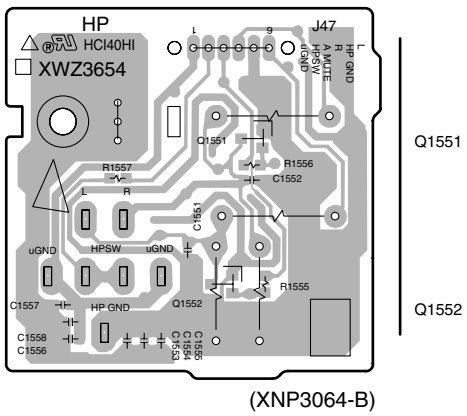
SIDE B



Q441
Q442
Q484

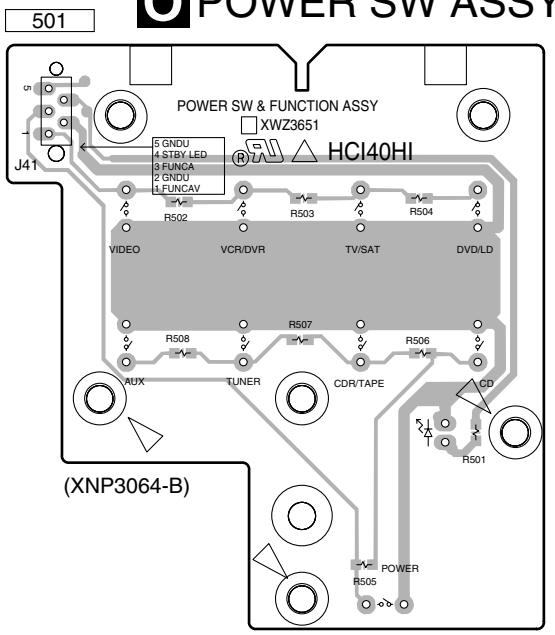
IC401

R H.P ASSY



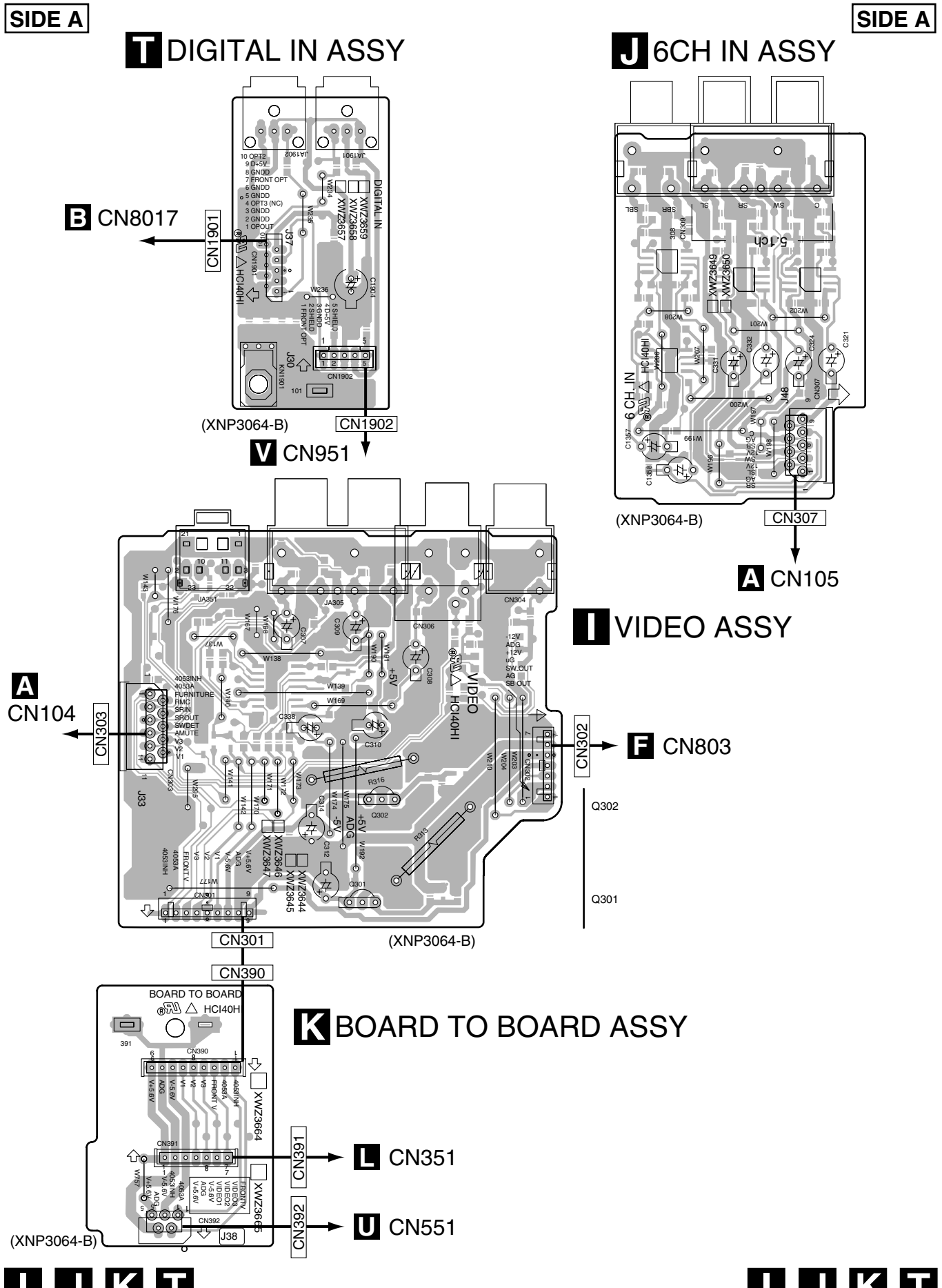
(XNP3064-B)

O POWER SW ASSY



(XNP3064-B)

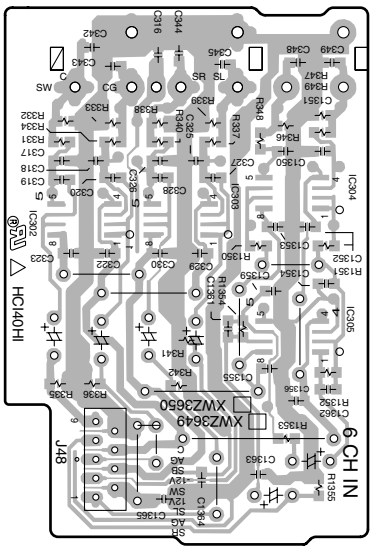
4.7 BOARD TO BOARD, DIGITAL IN, VIDEO and 6CH IN ASSYS



SIDE B

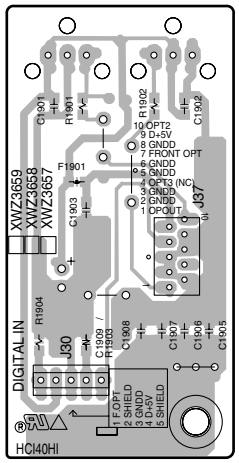
SIDE B

J 6CH IN ASSY



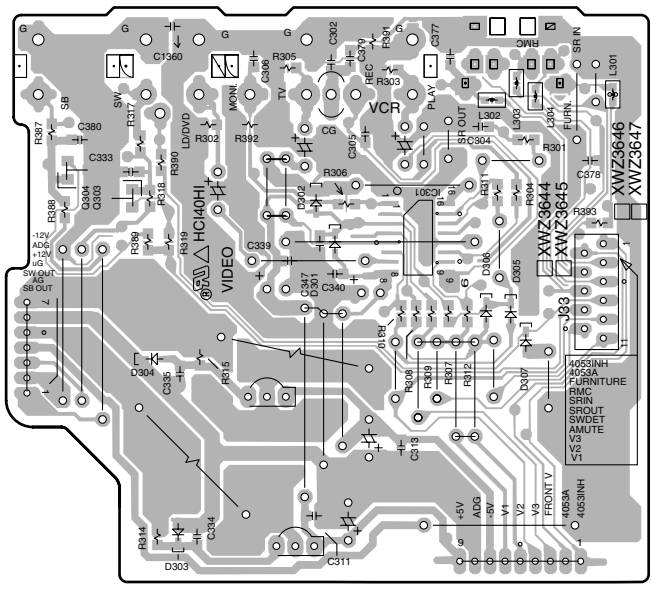
CN307 (XNP3064-B)

T DIGITAL IN ASSY



CN1902 (XNP3064-B)

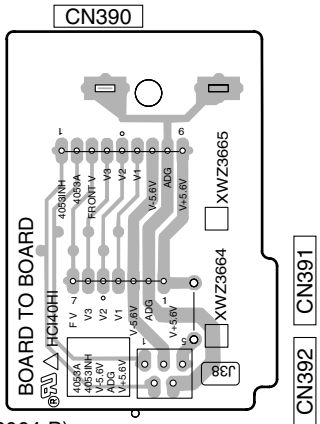
I VIDEO ASSY



(XNP3064-B) CN301

CN390

K BOARD TO BOARD ASSY

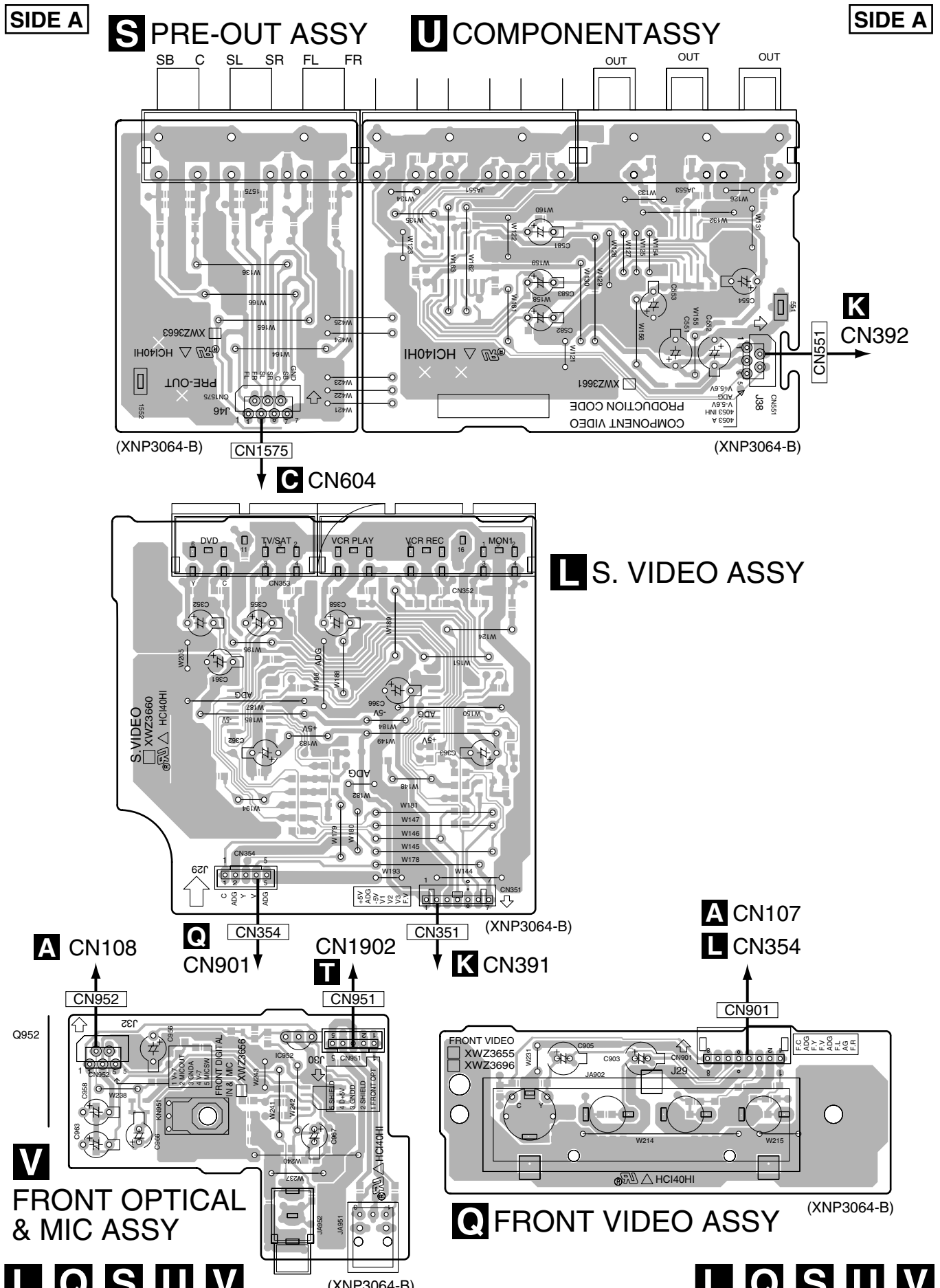


(XNP3064-B)

I J K T

I J K T

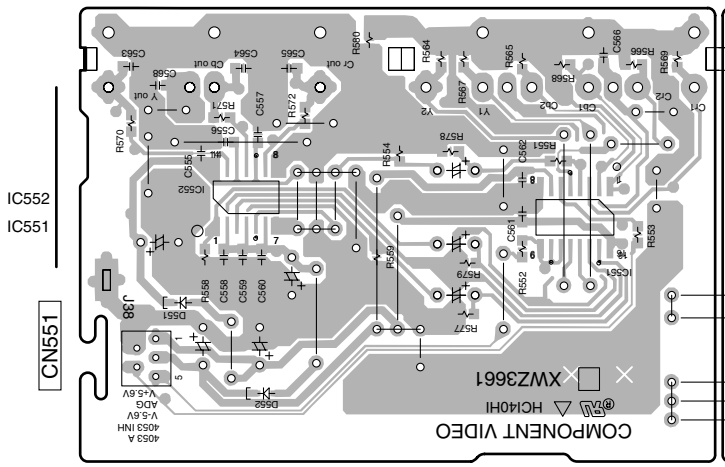
4.8 S.VIDEO, F.VIDEO, F.OPT&MIC, COMP. and PRE-OUT ASSYS



SIDE B

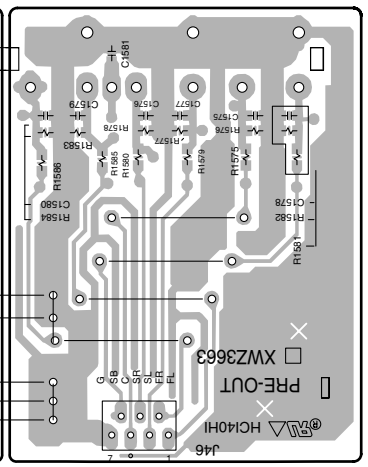
SIDE B

U COMPONENTASSY



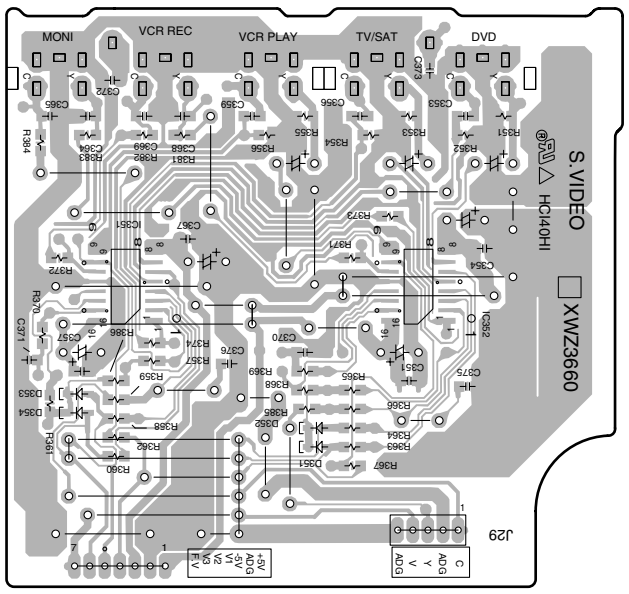
(XNP3064-B)

S PRE-OUT ASSY



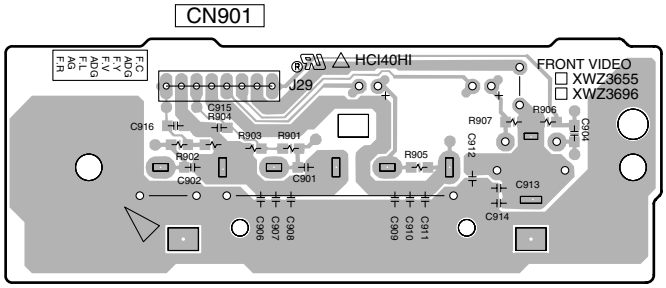
CN1575 (XNP3064-B)

L S. VIDEO ASSY



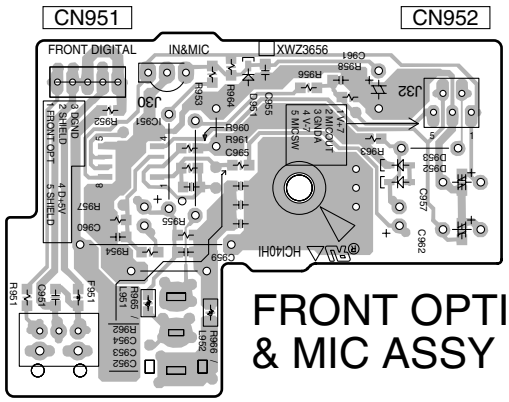
CN351 CN354 (XNP3064-B)

Q FRONT VIDEO ASSY



(XNP3064-B)

V FRONT OPTICAL & MIC ASSY



(XNP3064-B)

L Q S U V

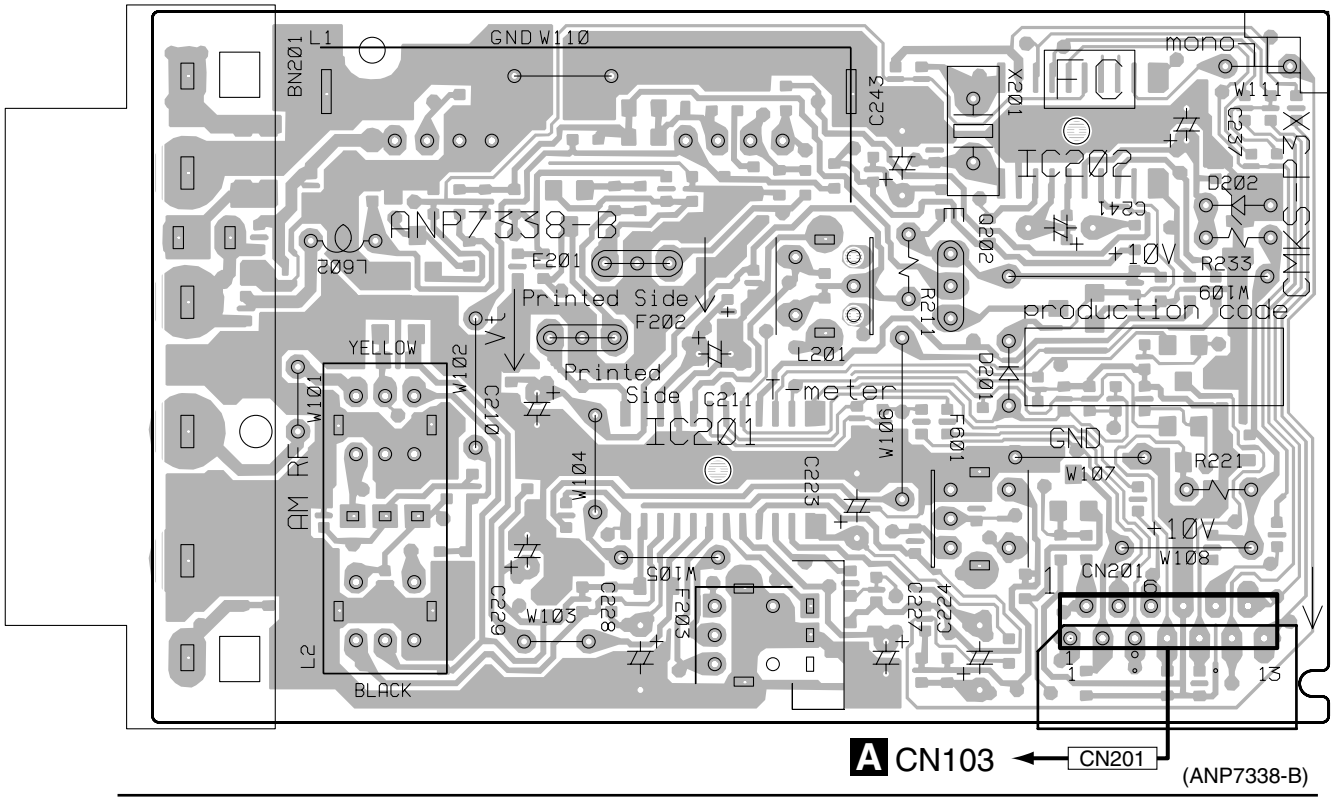
L Q S U V

4.9 FM/AM TUNER MODULE

SIDE A **SIDE B**

W FM/AM TUNER MODULE

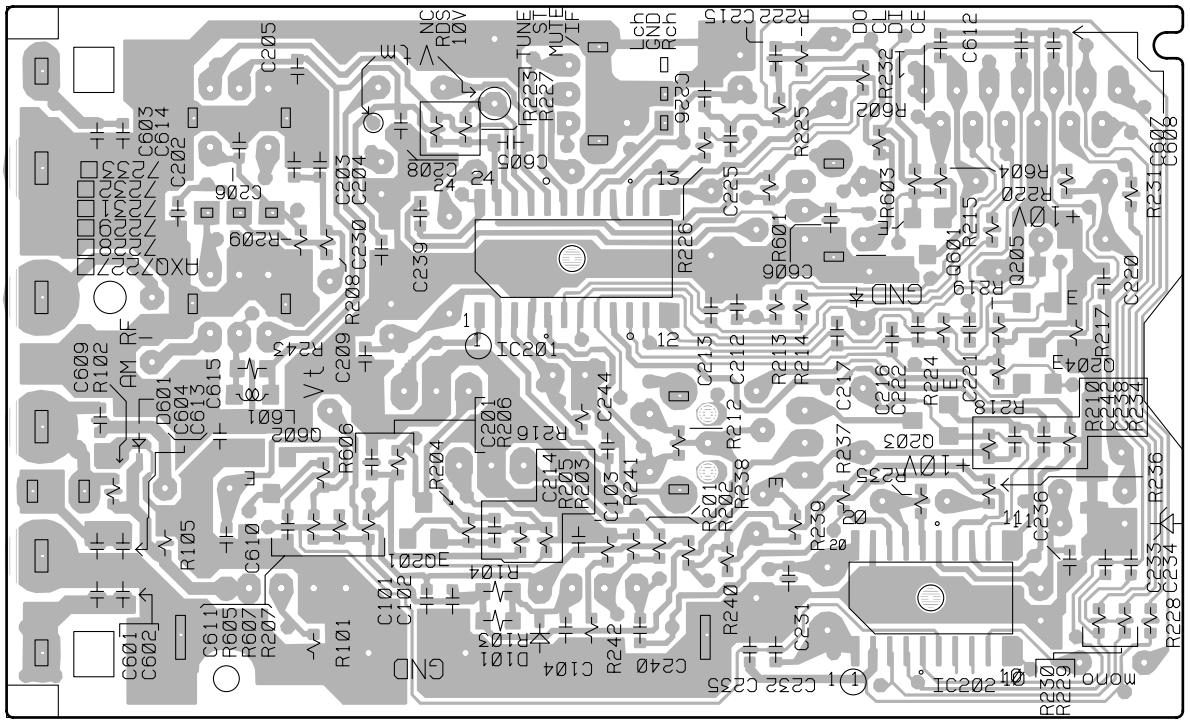
SIDE A



Q202

W FM/AM TUNER MODULE

SIDE B



Q201 IC201 Q203 IC202 Q205 Q204

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	→	*56 x 10¹* →	*561*	*RD1/4PU 5 6 1 J*
47k Ω	→	*47 x 10³* →	*473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→	*R50*		*RN2H R 5 0 K*
1 Ω	→	*1R0*		*RS1P 1 R 0 K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	→	*562 x 10¹* →	*5621*	*RN1/4PC 5 6 2 1 F*

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
	1	MAIN ASSY (VSX-D912)	XWK3100
	1	MAIN ASSY (VSX-D812)	XWK3095
	1	DSP ASSY	AWX1082
NSP	1	AMP & PS ASSY (VSX-D912)	XWK3089
NSP	1	AMP & PS ASSY (VSX-D812)	XWK3085
	2	AMP & PRIMARY ASSY (VSX-D912)	XWZ3673
	2	AMP & PRIMARY ASSY (VSX-D812)	XWZ3669
	2	REGULATOR ASSY	XWZ3676
	2	AMP INPUT ASSY	XWZ3679
NSP	2	TRANS1 ASSY	XWZ3681
	2	TRANS2 ASSY	XWZ3684
NSP	2	TRANS3 ASSY	XWZ3687
NSP	2	BINDER ASSY	XWZ3691
NSP	2	HOLDER ASSY	XWZ3693
NSP	1	COMPLEX ASSY (VSX-D912)	XWK3080
NSP	1	COMPLEX ASSY (VSX-D812)	XWK3078
	2	VIDEO ASSY	XWZ3646
	2	FRONT ASSY	XWZ3648
	2	6CH IN ASSY	XWZ3650
	2	POWER SW ASSY	XWZ3651
	2	R. ENCODER ASSY	XWZ3653
	2	H.P. ASSY	XWZ3654
	2	FRONT VIDEO ASSY	XWZ3655
	2	FRONT OPTICAL ASSY (VSX-D912)	XWZ3656
	2	DIGITAL IN ASSY (VSX-D912)	XWZ3659
	2	DIGITAL IN ASSY (VSX-D812)	XWZ3658
	2	S. VIDEO ASSY	XWZ3660
	2	COMPONENT ASSY	XWZ3661
	2	TRANS4 ASSY	XWZ3662
	2	PRE-OUT ASSY	XWZ3663
	2	BOARD TO BOARD ASSY	XWZ3664
	1	FM/AM TUNER MODULE	AXQ7231

• CONTRAST OF PCB ASSEMBLIES

A MAIN ASSY

XWK3100 and XWK3095 are constructed the same except for the following :

Mark	Symbol and Description	XWK3100	XWK3095
	R143	Not used	RS1/16S103J
	R9023	RS1/16S472J	RS1/16S0R0J
	R9025	RS1/16S472J	Not used
	R9040	Not used	RS1/16S473J
	CN108 5P CONNECTOR	52045-0545	Not used

C AMP & PRIMARY ASSY

XWZ3673 and XWZ3669 are constructed the same except for the following :

Mark	Symbol and Description	XWZ3673	XWZ3669
	C701, C702 (5600/71V)	XCH3015	Not used
	C701, C702 (4700/71V)	Not used	XCH3013

T DIGITAL IN ASSY

XWZ3659 and XWZ3658 are constructed the same except for the following :

Mark	Symbol and Description	XWZ3659	XWZ3658
	CN1902 CONNECTOR POST	B5B-PH-K	Not used

Mark No.	Description	Part No.

• PARTS LIST FOR VSX-D912-K

COMPLEX ASSY

OTHERS

	J 41 JUMPER WIRED	D15A05-075-2651
	J 42 JUMPER WIRED	D15A07-075-2651
	J 47 JUMPER WIRED	D20PYY0630E

AMP & PS ASSY

OTHERS

	Y 701 AWG14 BOARD IN	ADX7286
	J 21 JUMPER WIRED	D20PYY0715E

A MAIN ASSY

SEMICONDUCTORS

	IC109	BD3812F
	IC108	BD3813KS
	IC101	BD3841FS
	IC102	NJM2100M
	IC9001	PD5837A
	IC103–IC107, IC110–IC112, IC115	UPC4570G2
	Q5001	2SC2412K
	Q165, Q166, Q321, Q322	2SC3326
	Q341, Q342, Q361, Q362, Q395	2SC3326
	Q229, Q230	2SK208
	Q167, Q231, Q9002-Q9005	DTA124EK
	Q232	DTC124EK
	Q168, Q9001,Q9006	DTC143EK
	Q9007	DTC143TK
	D103–D108, D229, D230, D301	1SS355
	D311, D312, D5001,D9001-D9013	1SS355
	D101, D102	RB501V-40
	D331, D332	UDZS6.8B

COILS AND FILTERS

	L9001,L9002 CHIP SOLID INDUCTOR	ATL7002
	L9003	LFEA2R2J
	L101–L104, L111, L112, L5002 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C9003 (0.22F/5.5V)	ACH7144
	C101–C114, C151, C152	CCSRCH101J50
	C163, C164, C181–C192	CCSRCH101J50
	C197, C198, C243, C244, C263	CCSRCH101J50
	C284, C313, C314, C317, C318	CCSRCH101J50
	C323, C324, C343, C344, C363	CCSRCH101J50
	C386	CCSRCH101J50
	C1031,C1041,C117, C118	CCSRCH220J50
	C205–C208, C245–C248, C265	CCSRCH331J50
	C267, C286, C288	CCSRCH331J50
	C203, C204	CCSRCH471J50
	C366	CEANP4R7M50
	C121–C128, C131–C142	CEAT100M50
	C167, C168, C209, C210	CEAT100M50
	C213, C214, C249, C250	CEAT100M50
	C269, C270, C290, C301–C306	CEAT100M50
	C321, C322, C341, C342	CEAT100M50
	C361, C362, C380, C382, C384	CEAT100M50
	C5007	CEAT101M16
	C169, C9002	CEAT221M6R3
	C201, C202, C241, C242	CEAT2R2M50
	C261, C262, C282, C9005	CEAT2R2M50
	C9007	CEAT331M6R3
	C325, C326, C345, C346, C365	CEAT470M25
	C388	CEAT470M25
	C155, C156	CEAT470M50
	C333, C334	CEAT471M10
	C9013	CEAT471M6R3
	C165, C166, C370	CEAT4R7M50
	C170	CKSQYB104K16
	C320, C392, C5001,C9015,C9016	CKSRYB102K50
	C115, C116, C153, C154, C171	CKSRYB103K50
	C179, C180, C199, C215–C218	CKSRYB103K50
	C251, C252, C266, C271, C272	CKSRYB103K50
	C291, C292, C315, C316, C319	CKSRYB103K50
	C327–C330, C347, C348	CKSRYB103K50
	C367, C368, C389, C390, C5002	CKSRYB103K50
	C9001,C9004,C9008,C9017	CKSRYB103K50
	C219, C220, C309–C312	CKSRYB104K16
	C5003,C9006	CKSRYB105K10
	C264	CKSRYB223K25
	C257, C258, C277, C278, C298	CKSRYB472K50
	C307, C308, C364	CKSRYB472K50
	C9011,C9014	CKSRYB473K16
	C268	CKSRYB562K50
	C391	CKSRYF104Z16

RESISTORS

⚠	R171, R172	RS1/16S470J
⚠	R173, R174	RS1/16S472J
⚠	R311, R312	RS1LMF101J
	Other Resistors	RS1/16S###J

OTHERS

	CN105 9P CONNECTOR	52044-0945
	CN104 11P CONNECTOR	52044-1145
	CN103 13P CONNECTOR	52044-1345
	CN108 5P CONNECTOR	52045-0545
	CN102 10P CONNECTOR	52045-1045
	CN101 17P CONNECTOR	52045-1745
	CN106, CN112 7P CONNECTOR	52045-1945
	JA101–JA104 PIN JACK(4P)	AKB7048
	CN107 CONNECTOR POST	B3B-PH-K
	CN109 18P SOCKET	KP200TA18L
	CN111 20P SOCKET	KP200TA20L
	101–103 PCB BINDER	VEF1040
	X9001 CERAMIC RESONATOR (15.7 MHz)	ASS7032

B DSP ASSY

SEMICONDUCTORS

	IC8201	AK4114VQ
	IC8401	AK4529VQ
	IC8501	DSPD56367PV150
	IC8601	IS61LV6416-12T
	IC8602	IS63LV1024-12T
	IC8901	NJM2391DL1-33
	IC8902	NJU7223DL1-18
	IC8603	PD8116A
	IC8101	TC74HCU04AF
	IC8701	TC74LVX244FT

Mark No.	Description	Part No.
	IC8702	TC74VHCT244AFT
	IC8503	TC7WH125FU
	IC8502	TC7WU04FU
	Q8504	UMD2N
	Q8503	UN5112
	Q8501	UN5212
	D8501	1SS355
	D8401	DAN202K
	D8402,D8502,D8503	DAP202K

COILS AND FILTERS

	L8002,L8004,L8501,L8502	ATL7002
	L8601-L8603 CHIP SOLID INDUCTOR	ATL7002
	L8101-L8104,L8201,L8203,L8204	QTL1013
	L8401,L8402,L8504,L8505	QTL1013
	L8701,L8702 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

	C8209,C8210	CCSRCH100D50
	C8421	CCSRCH101J50
	C8107,C8112	CCSRCH470J50
	C8007,C8008,C8109,C8201,C8212	CCSRCH471J50
	C8214,C8404,C8409-C8414	CCSRCH471J50
	C8416,C8417,C8419,C8505,C8507	CCSRCH471J50
	C8509,C8511,C8512,C8515,C8518	CCSRCH471J50
	C8520,C8522,C8524,C8526,C8528	CCSRCH471J50
	C8530,C8532,C8534,C8536,C8539	CCSRCH471J50
	C8541,C8543,C8545,C8551,C8552	CCSRCH471J50
	C8602,C8603,C8606,C8607,C8610	CCSRCH471J50
	C8703,C8706	CCSRCH471J50
	C8548,C8549	CCSRCH8R0D50
	C8701,C8704	CEV100M16
	C8105,C8406,C8415,C8546,C8547	CEV101M16
	C8613,C8902,C8904	CEV101M16
	C8217,C8225,C8408	CEV470M6R3
	C8204,C8555	CKSRYB102K50
	C8009,C8104,C8114,C8405,C8418	CKSRYB103K50
	C8517,C8554	CKSRYB103K50
	C8010,C8115,C8202,C8207,C8213	CKSRYB104K16
	C8215,C8407,C8420,C8422,C8504	CKSRYB104K16
	C8513,C8521,C8523,C8525,C8527	CKSRYB104K16
	C8529,C8531,C8533,C8535	CKSRYB104K16
	C8537,C8538,C8540,C8542,C8544	CKSRYB104K16
	C8550,C8553,C8601,C8604,C8605	CKSRYB104K16
	C8608,C8609,C8702,C8705,C8901	CKSRYB104K16
	C8903	CKSRYB104K16
	C8110,C8516	CKSRYB105K6R3
	C8514	CKSRYB333K16
	C8203	CKSRYB473K50

RESISTORS

	R8506	RAB4C101J
	R8201	RS1/16S1802F
	Other Resistors	RS1/16S###J

OTHERS

	CN8012 19P CONNECTOR	52045-1945
	JA8101 2P PIN JACK	AKB7131
	CN8003 13P SOCKET	AKP7070
	CN8007 19P SOCKET	AKP7073
	JA8102 OPT. LINK IN	GP1FA513RZB
	CN8017 10P CONNECTOR	VKN1414

Mark No.	Description	Part No.
	X8501 CRYSTAL RESONATOR (20 MHz)	VSS1171
	X8201 CRYSTAL RESONATOR (24.576 MHz)	XSS3003

C AMP & PRIMARY ASSY

SEMICONDUCTORS

⚠	IC603 PROTECTOR(1A)	AEK7009
⚠	IC604–IC607 PROTECTOR(125mA)	AEK7022
	IC701, IC702 PROTECTOR(400mA)	ICP-N10
	IC51	NJM78M56FA
⚠	IC601, IC602	PAC011A
	Q703	2SA1145
	Q702	2SA1837D1
	Q696, Q697	2SC1740S
	Q704	2SC1845
	Q605, Q606, Q633, Q655, Q656	2SC2240
	Q683	2SC2240
	Q601–Q604, Q631, Q632	2SC2878
	Q651–Q654, Q681, Q682	2SC2878
	Q701	2SC4793D1
	Q51	KRC101M
	D56, D601, D603, D606, D608	1SS133
	D631, D632, D651–D654	1SS133
	D683, D684, D752, D754, D758	1SS133
⚠	D701, D702	D5SBA20(B)
	D602, D604, D681, D682	MTZJ16A
	D711	MTZJ22D
	D58	MTZJ5.1A
	D712	MTZJ5.1B
⚠	D51–D55, D721–D724	S5688G

COILS AND FILTERS

⚠	L51 LINE FILTER	ATF7018
	L751–L754, L761, L762 COIL	ATH1004

SWITCHES AND RELAYS

	RY751–RY754	XSR3002
⚠	RY51	XSR3003

CAPACITORS

	C707, C708 (0.01/AC250V)	ACG1005
⚠	C51, C52 (10000pF/AC250V)	ACG7020
	C611–C614, C636, C637	CCPUCH6R8K50
	C661–C664, C686, C687	CCPUCH6R8K50
	C615, C616, C638, C665, C666	CEANP2R2M50
	C688	CEANP2R2M50
	C775, C776	CEANP470M50
	C712	CEAT101M10
	C609, C610, C635, C659, C660	CEAT101M16
	C685	CEAT101M16
	C711	CEAT101M35
	C53	CEAT102M16
	C697	CEAT221M10
	C54	CEAT470M25
	C605, C606, C633, C655, C656	CEAT4R7M50
	C683	CEAT4R7M50
	C705, C706	CEHAT100M2A
	C751, C752, C755, C761, C762	CFTYA104J50
	C771	CFTYA104J50
	C607, C608, C634, C657, C658	CKPUYB101K50
	C684	CKPUYB101K50

Mark	No.	Description	Part No.
	C696		CKPUYB102K50
	C603, C604, C632, C653, C654		CKPUYB331K50
	C682		CKPUYB331K50
	C55–C57		CKPUYF103Z25
	C703, C704	(3300/42V)	XCH3012
	C701, C702	(5600/71V)	XCH3015

RESISTORS

⚠	R51	(2.2M/ 1/2W)	RCN1080
⚠	R52		RD1/2PM270J
⚠	R615		RD1/4PU331J
⚠	R751, R752, R755, R761, R762		RD1/4PUF101J
⚠	R772		RD1/4PUF101J
⚠	R753, R754, R756, R763, R764		RS1LMF4R7J
⚠	R771		RS1LMF4R7J
⚠	R711		RS2LMF392J
⚠	R617, R622, R639, R667, R668		XCN3001
⚠	R691	(0.22/5W)	XCN3001
	Other Resistors		RD1/4PU###J

OTHERS

CN604	7P CONNECTOR	52045-0745
CN53	23P CONNECTOR	52045-2345
CN702	6P JUMPER CONNECTOR	52147-0610
CN751	SPEAKER TERMINAL 8-P	AKE7074
CN753	SPEAKER TERMINAL 6-P	AKE7075
CN752	SPEAKER TERMINAL 4-P	AKE7076
51	AC SOCKET 1-P	AKP1060
H51, H52, H701, H702	FUSE CLIP	AKR7001
⚠ T51	STANDBY TRANSFORMER	ATT7043
CN601	18P PLUG	KM200TA18
CN51	AC CODE SOCKET	RKP1751
KN51, KN601	EARTH METAL FITTING	VNF1084
701	7P CABLE HOLDER	XKP3047

D TRANS2 ASSY

SEMICONDUCTORS

⚠	IC853	PROTECTOR (3A)	AEK7015
⚠	IC851, IC852	PROTECTOR (4A)	AEK7018

OTHERS

851	7P CABLE HOLDER	XKP3047

E TRANS3 ASSY

TRANS3 ASSY has no service part.

F REGULATOR ASSY

SEMICONDUCTORS

IC803, IC804		NJM78M05FA
IC801, IC805		NJM78M12FA
IC806		NJM78M56FA
IC802		NJM79M12FA
Q801, Q803, Q805		KRA103M
Q802, Q804, Q806		KRC102M
D809–D811		MTZJ6.2A
⚠ D801–D804		S5688G

CAPACITORS

C808, C811, C815		CEAT101M10
C805, C806, C813		CEAT101M16
C801, C802		CEAT222M25
C809		CEAT472M16
C803, C804, C807, C810, C812		CKPUYF103Z25
C814		CKPUYF103Z25

OTHERS

CN801	23P CONNECTOR	52045-2345
CN805	13P PLUG	AKP7059
CN806	19P PLUG	AKP7062
CN804	18P PLUG	KM200TA18
CN802	20P PLUG	KM200TA20
CN803	7P PLUG	KM200TA7

G AMP INPUT ASSY

SEMICONDUCTORS

IC251		NJM4558D-D
Q257		2SA933S
Q251, Q256		2SC2878
Q252		2SD1858X
Q254		KRA103M
Q253, Q255		KRC103M
D251, D252		1SS133
D253		MTZJ27D
D254		MTZJ5.1B

CAPACITORS

C251		CEANP470M25
C254		CEAT101M25
C252, C253		CKPUYF103Z25

RESISTORS

All Resistors		RD1/4PU###J

OTHERS

CN251	3P CONNECTOR	52044-0345
CN254	19P CONNECTOR	52044-1945
CN252	3P PLUG	KM250MA3L
CN253	18P SOCKET	KP200TA18L

H TRANS1 ASSY

TRANS1 ASSY has no service part.

I VIDEO ASSY

SEMICONDUCTORS

IC301		NJM2595M
Q302		2SA1515
Q303		2SC3326
Q301		2SC3377
D301, D302, D305, D306		1SS355
D307		UDZS5.1B
D303, D304		UDZS6.2B

COILS AND FILTERS

L301–L304	CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

C347		CCSRCH470J50
C307–C310, C312, C314, C338		CEAT470M25
C1360,C302, C379		CKSRYB103K50
C339, C340		CKSRYB104K25
C304–C306		CKSRYB221K50
C333		CKSRYB331K50
C311, C313		CKSRYB473K25

Mark	No.	Description	Part No.
		RESISTORS	
⚠	R313, R316		RS3LMF390J
	Other Resistors		RS1/16S###J
		OTHERS	
	CN303	11P CONNECTOR	52044-1145
	JA305	PIN JACK(4P)YELLOW	AKB7100
	CN302	7P SOCKET	KP200TA7L
	CN301	9P SOCKET	KP200TA9L
	CN306	2P PIN JACK	XKB3041
	JA351	2P JACK	XKN3013

J 6CH IN ASSY

		SEMICONDUCTORS	
	IC302–IC305		NJM4558MD
		CAPACITORS	
	C1354,C1359,C319, C320		CCSRCH101J50
	C327, C328, C342–C345		CCSRCH101J50
	C348, C349		CCSRCH101J50
	C1362		CCSRCH121J50
	C1361		CCSRCH680J50
	C1357		CEAT220M25
	C1358,C321, C324, C331, C332		CEAT4R7M50
	C1363-C1365		CKSRYB102K50
	C1352,C1353,C1355,C1356,C316		CKSRYB103K50
	C322, C323, C329, C330		CKSRYB103K50
	C1350,C1351,C317, C318		CKSRYB221K50
	C325, C326		CKSRYB221K50
		RESISTORS	
	All Resistors		RS1/16S###J
		OTHERS	
	CN307	9P CONNECTOR	52044-0945
	308	6P PIN JACK	AKB7089

K BOARD TO BOARD ASSY

		OTHERS	
	CN392	5P CONNECTOR	52045-0545
	CN391	7P PLUG	KM200TA7
	CN390	9P PLUG	KM200TA9

L S. VIDEO ASSY

		SEMICONDUCTORS	
	IC351, IC352		NJM2595M
	D351–D354		1SS355
		CAPACITORS	
	C375, C376		CCSRCH470J50
	C352, C355, C358, C361–C363		CEAT470M25
	C366		CEAT470M25
	C372, C373		CKSRYB103K50
	C351, C353, C354, C356, C357		CKSRYB104K25
	C359, C367		CKSRYB104K25
	C364, C365, C368–C371		CKSRYB221K50
		RESISTORS	
	All Resistors		RS1/16S###J
		OTHERS	
	CN353	2-4P MINI DIN SOCKET	AKP7020
	CN352	3-4P MINI DIN SOCKET	AKP7043
	CN354	CONNECTOR POST	B5B-PH-K
	CN351	7P SOCKET	KP200TA7L

M FRONT ASSY

		SEMICONDUCTORS	
	IC401		PE5346A
	Q484		2SA1037K
	Q441, Q442		DTC124EK
	D403–D405		1SS355
	D401, D402		DAN202K
		COILS AND FILTERS	
	L401		LFEA2R2J
		SWITCHES AND RELAYS	
	S451–S469		ASG7013
		CAPACITORS	
	C482, C483		CCSRCH221J50
	C481		CCSRCH471J50
	C442		CEAL470M10
	C403		CEAT221M6R3
	C405		CEAT470M10
	C412		CEAT470M50
	C415, C451–C454		CKSRYB102K50
	C401, C402, C404, C410, C411		CKSRYB103K50
	C419, C441		CKSRYB103K50
	C418, C421		CKSRYB104K16
	C420		XCH3011
		RESISTORS	
	All Resistors		RS1/16S###J
		OTHERS	
	471	CABLE HOLDER (5P)	51063-0505
	404	CABLE HOLDER (7P)	51063-0705
	CN401	17P CONNECTOR	52044-1745
	CN402	9P CONNECTOR	52492-0920
	V401	FL TUBE	XAV3018
	X401	CERAMIC RESONATOR (5 MHz)	VSS1142
	401	REMOTE RECEIVERUNIT	GP1UM28XK

N R. ENCODER ASSY

		SEMICONDUCTORS	
	D512		SLR-343BBT
	D511		UDZS5.6B
		SWITCHES AND RELAYS	
	S511		ASG7013
	S513	ROTARY ENCODER	XSX3005
	S512	ROTARY ENCODER	XSX3006
		RESISTORS	
	All Resistors		RS1/16S###J
		OTHERS	
	511	CABLE HOLDER (7P)	51063-0705

O POWER SW ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	D501		SLR-343VC
		SWITCHES AND RELAYS	
	S501–S509		ASG7013
		RESISTORS	
	All Resistors		RS1/16S###J
		OTHERS	
	501	CABLE HOLDER (5P)	51063-0505

P TRANS4 ASSY

SEMICONDUCTORS

	IC891, IC892	PROTECTOR (630mA) AEK7006
	D891	S1WB(A)60SD
		CAPACITORS
	C891, C892	CEAT471M35
		OTHERS
	CN891	52045-0345

Q FRONT VIDEO ASSY

CAPACITORS

	C901, C902, C915, C916	CCSRCH101J50
	C903, C905	CEAL470M25
	C908, C911, C914	CKSRYB103K50
	C904, C906, C909, C912	CKSRYB104K25
	C907, C910, C913	CKSRYB471K50
		RESISTORS
	All Resistors	RS1/16S###J
		OTHERS
	JA902	PIN JACK (4P) AKX7014

R H.P. ASSY

SEMICONDUCTORS

	Q1551,Q1552	2SC3326
		CAPACITORS
	C1554,C1557	CCSRCH471J50
	C1553,C1556	CKSRYB103K50
	C1555,C1558	CKSRYB104K16
	C1551,C1552	CKSRYB223K50
		RESISTORS
⚠	R1553,R1554	RS1LMF151J
⚠	R1551,R1552	RS2LMF331J
	Other Resistors	RS1/16S###J
		OTHERS
	1551	6P CABLE HOLDER 51048-0600
	JA1551	HEADPHONE JACK RKB1014
	KN1551	EARTH METAL FITTING VNF1084

S PRE-OUT ASSY

CAPACITORS

	C1581	CKSRYB103K50
		RESISTORS
	All Resistors	RS1/16S###J
		OTHERS
	CN1575	7P CONNECTOR 52045-0745
	1575	PIN JACK(6P) AKB7089

T DIGITAL IN ASSY

COILS AND FILTERS

	F1901	CHIP BEAD DTF1067
		CAPACITORS
	C1907,C1909	CCSRCH101J50
	C1904	CEAL101M10
	C1908	CKSRYB102K50
	C1903,C1906	CKSRYB103K50
	C1901,C1902,C1905	CKSRYB104K25
		RESISTORS
	All Resistors	RS1/16S###J
		OTHERS
	CN1902	CONNECTOR POST B5B-PH-K
	JA1901	OPT. LINK IN GP1FA513RZB
	JA1902	OPT. LINK OUT 12MB/S GP1FA513TZ
	CN1901	10P CONNECTOR VKN1186
	KN1901	WRAPPING TERMINAL VNF1084

U COMPONENT ASSY

SEMICONDUCTORS

	IC552	NJM2581M
	IC551	TC74HC4053AF
	D551, D552	1SS355
		CAPACITORS
	C551–C554	CEAT101M10
	C555–C562, C566, C568	CKSRYB103K50
		RESISTORS
	All Resistors	RS1/16S###J
		OTHERS
	CN551	5P CONNECTOR 52045-0545
	JA553	3P RCA PINJACK AKB7124
	JA551	6P RCA PINJACK AKB7128

V FRONT OPTICAL ASSY

SEMICONDUCTORS

	IC951	UPC4570G2
	D951–D953	UDZS5.1B
		COILS AND FILTERS
	F951	CHIP BEAD DTF1067
		CAPACITORS
	C960	CCSRCH101J50
	C965	CCSRCH330J50
	C952, C959	CCSRCH471J50
	C956, C958, C963, C966, C967	CEAT100M50
	C953, C957, C962	CKSRYB103K50
	C951, C954	CKSRYB104K25
		RESISTORS
	All Resistors	RS1/16S###J
		OTHERS
	CN952	CONNECTOR 5P 52045-0545
	CN951	CONNECTOR POST B5B-PH-K
	JA952	JACK RKN1004

Mark	No.	Description	Part No.
JA951		OPTICAL INPUT JACK	TORX179PL
KN951		WRAPPING TERMINAL	VNF1084

W FM/AM TUNER MODULE

SEMICONDUCTORS

IC201	BA1451F
IC202	LC72131MD
Q201, Q204, Q205	2SC2412K
Q202	DTA124ES
Q203	DTC124EK
D201	1SS133
D202	MTZJ5.1C

COILS AND FILTERS

L201 FM DETECTOR COIL	ATE7003
F202 CERAMIC FILTER	ATF-107
F201 CERAMIC FILTER	ATF-119
F203 AM CERAMIC FILTER	ATF7026

CAPACITORS

C206	CCSRCH100D50
C212, C213, C226, C233–C235	CCSRCH101J50
C240	CCSRCH101J50
C231, C232	CCSRCH150J50
C223	CEAT100M50
C229	CEAT101M10
C224	CEAT1R0M50
C227	CEAT220M25
C241	CEAT2R2M50
C243	CEAT330M16
C228	CEAT3R3M50
C237	CEAT470M10
C211	CEJA1R0M50
C210	CEJQ470M16
C204, C238, C602	CKSRYB102K50
C101, C102, C208, C220, C239	CKSRYB103K50
C242, C601	CKSRYB103K50
C216, C217, C225	CKSRYB153K50
C201, C205, C209, C214, C230	CKSRYB223K50
C236, C603	CKSRYB223K50
C221	CKSRYB224K10
C202, C222	CKSRYB473K16
C215	CKSRYB681K50

RESISTORS

R211	RD1/4PU221J
R221	RD1/4PU222J
R233	RD1/4PU391J
R243	RS1/10S0R0J
R103	RS1/10S331J
R104	RS1/10S391J
Other Resistors	RS1/16S###J

OTHERS

CN201 13P CONNECTOR	52044-1345
BN201 TERMINAL 4-P	AKA7003
(SHIELD CASE T)	ANK7072
(SHIELD CASE B)	ANK7073
X201 CRYSTAL RESONATOR (7.2MHz)	ASS1093
FM FRONTEND	AXF7003
AM RF TUNING BLOCK	AXX7071

6. ADJUSTMENT
6.1 TUNER SECTION

■ AM Tuner Section
• There is no adjustment in the AM tuner.

■ FM Tuner Section
• Set the mode selector to FM BAND.
• Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	ANT. Input level and signal condition			Adjustment	
		Frequency (MHz)	Modulation	Input Level (dBμV)	Adjust point	Contents
1	T-METER Adjustment	98	OFF	80	L201	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point Vtm) gets within 0 ± 50mV.

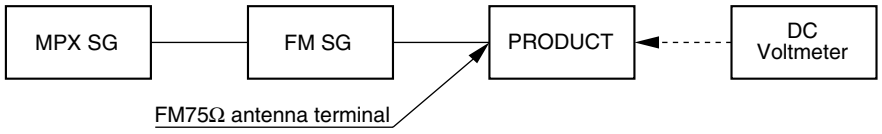
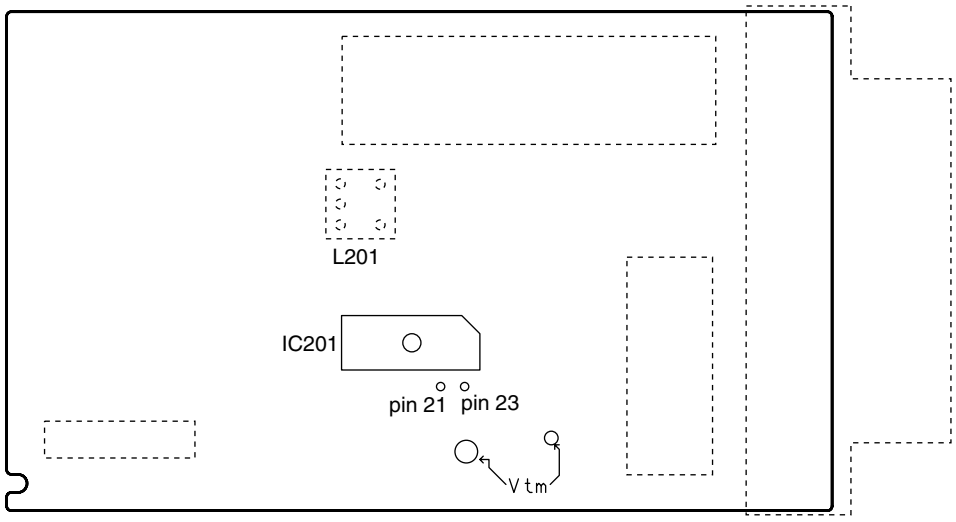


Fig.1 Adjustment Wiring Diagram

W FM/AM TUNER MODULE



SIDE B

Fig.2 Adjustment Point

7. GENERAL INFORMATION

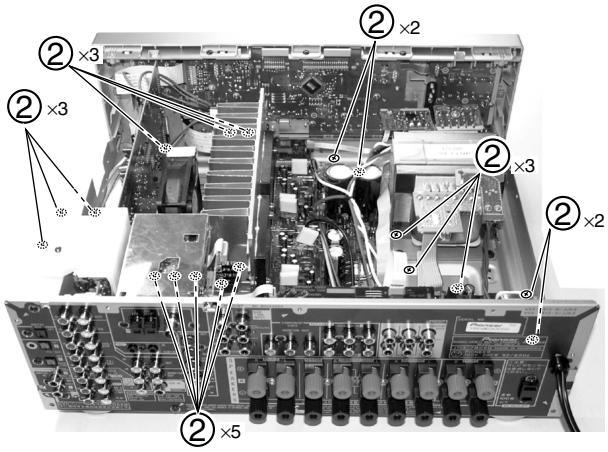
7.1 DIAGNOSIS

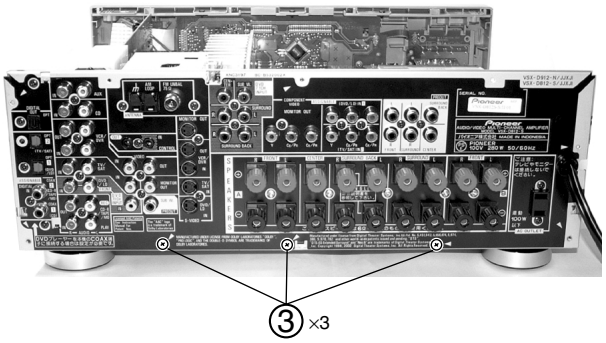
7.1.1 DISASSEMBLY AND DIAGNOSIS

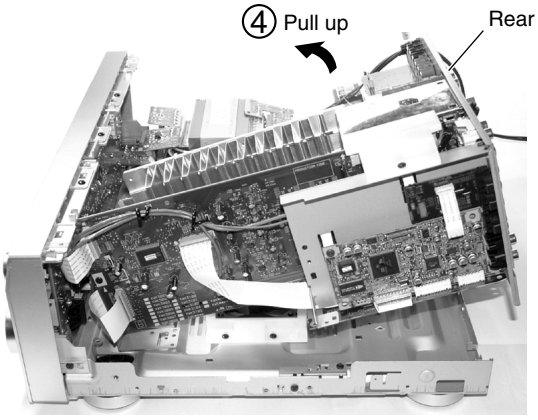
■ **Diagnosis**

Note : This photograph shows other models.
However, the work method is the same.

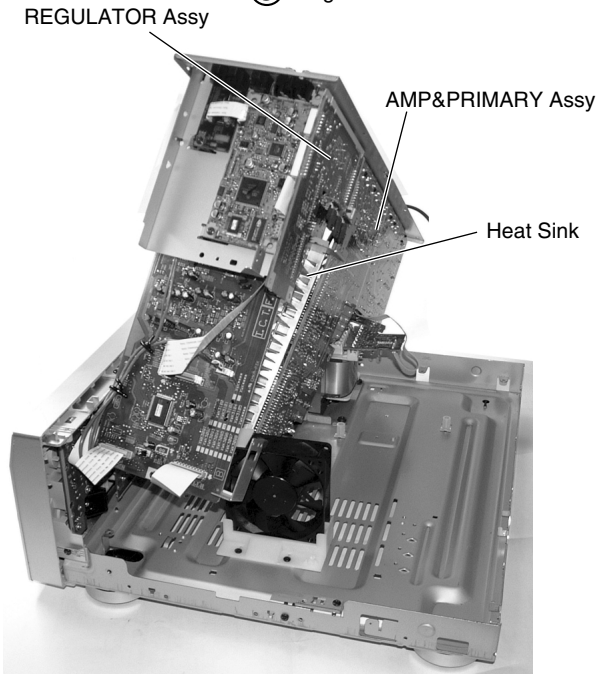
① Remove the top cover (nine screws).





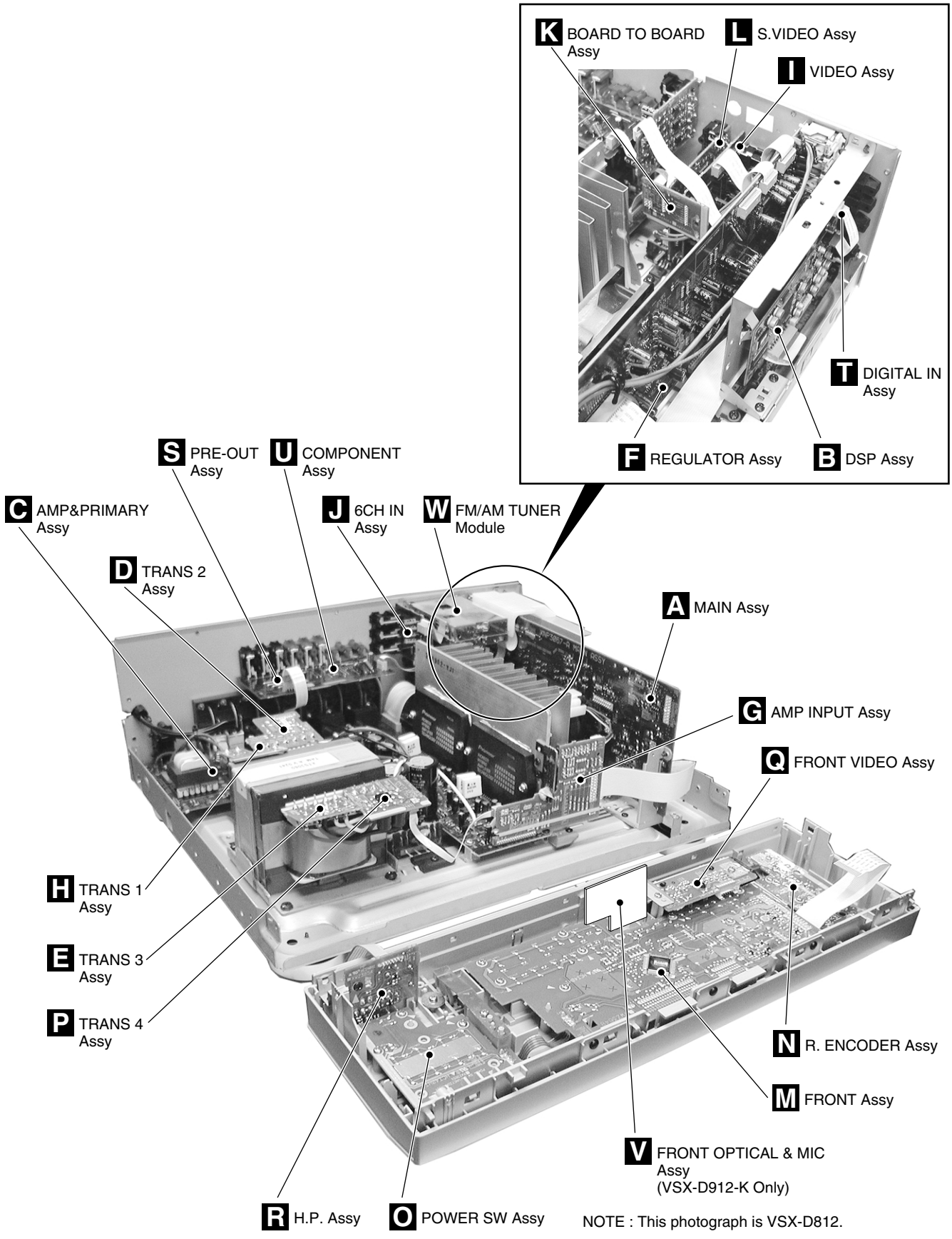


⑤ Diagnosis



Note : The unit does not operate when the screws of Speaker Terminal are taken off from Rear Panel.

7.1.2 PCB LOCATION



NOTE : This photograph is VSX-D812.

7.2 PARTS
7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

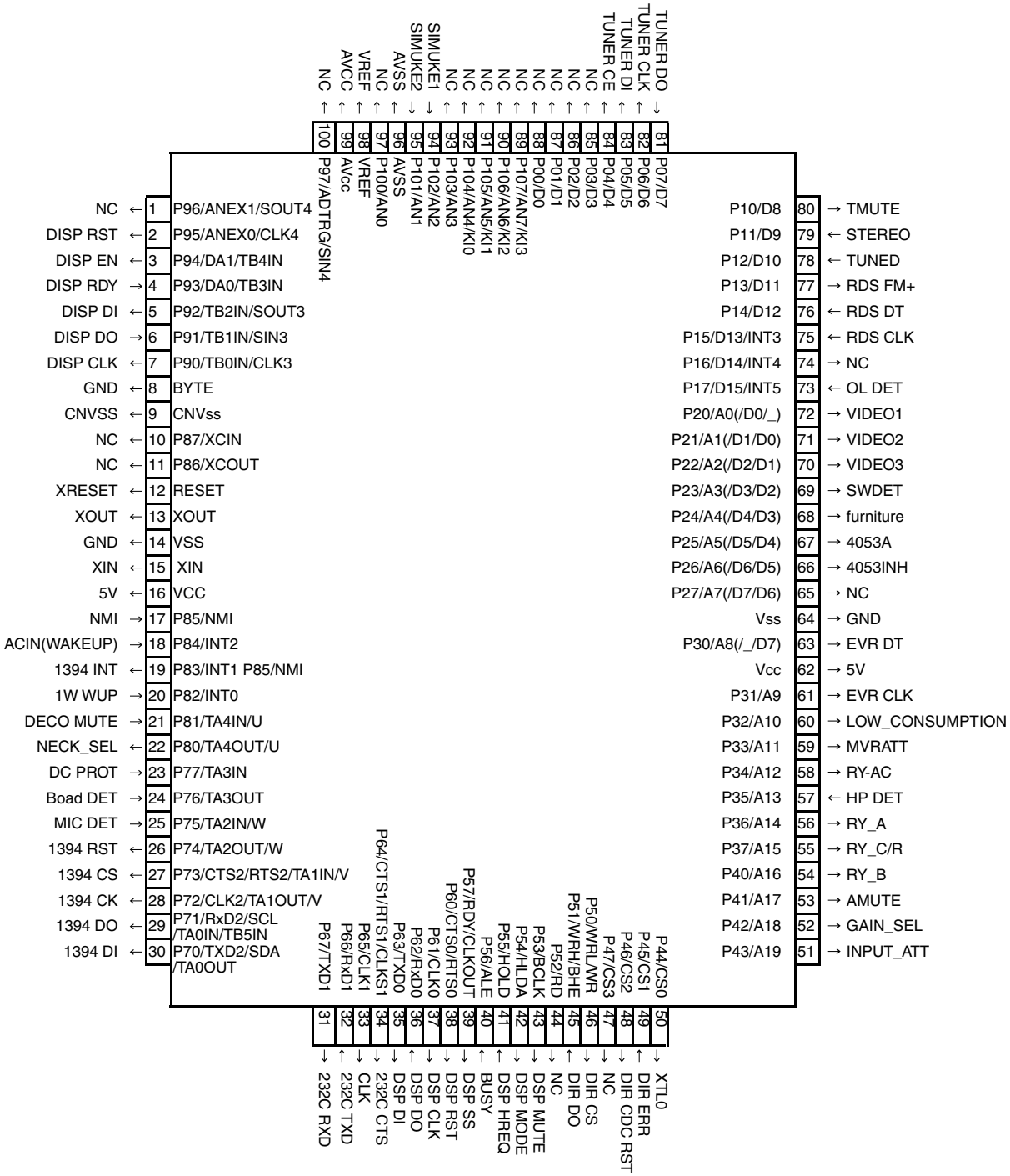
• List of IC

PD5837A, PE5346A, BD3813KS, BD3841FS, NJM2581, NJM2595, AK4529

■ PD5837A (MAIN ASSY : IC9001)

• System Control MCU

■ Pin Arrangement (Top View)


1 NC ← P96/ANEX1/SOUT4
2 DISP RST ← P95/ANEX0/CLK4
3 DISP EN ← P94/DA1/TB4IN
4 DISP RDY → P93/DA0/TB3IN
5 DISP DI ← P92/TB2IN/SOUT3
6 DISP DO → P91/TB1IN/SIN3
7 DISP CLK ← P90/TB0IN/CLK3
8 GND ← BYTE
9 CNVSS ← CNVss
10 NC ← P87/XCIN
11 NC ← P86/XCOUT
12 XRESET ← RESET
13 XOUT ← XOUT
14 GND ← VSS
15 XIN ← XIN
16 5V ← VCC
17 NMI → P85/NMI
18 ACIN(WAKEUP) → P84/INT2
19 1394 INT ← P83/INT1 P85/NMI
20 1W WUP → P82/INT0
21 DECO MUTE → P81/TA4IN/U
22 NECK_SEL ← P80/TA4OUT/U
23 DC PROT → P77/TA3IN
24 Boad DET → P76/TA3OUT
25 MIC DET → P75/TA2IN/W
26 1394 RST ← P74/TA2OUT/W
27 1394 CS ← P73/CTS2/RTS2/TA1IN/V
28 1394 CK ← P72/CLK2/TA1OUT/V
29 1394 DO ← P71/RxD2/SCL /TA0IN/TB5IN
30 1394 DI ← P70/TXD2/SDA /TA0OUT
31 P67/TXD1 → 232C RXD
32 P66/RxD1 ← 232C TXD
33 P65/CLK1 → CLK
34 P64/CTS1/RTS1/CLKS1 → 232C CTS
35 P63/TXD0 → DSP DI
36 P62/RxD0 ← DSP DO
37 P61/CLK0 → DSP CLK
38 P60/CTS0/RTS0 → DSP RST
39 P57/RDY/CLKOUT → DSP SS
40 P56/ALE ← BUSY
41 P55/HOLD ← DSP HREQ
42 P54/HLDA → DSP MODE
43 P53/BCLK → DSP MUTE
44 P52/RD → NC
45 P51/WRH/BHE → DIR DO
46 P50/WRL/WR → DIR CS
47 P47/CS3 → NC
48 P46/CS2 → DIR CDC RST
49 P45/CS1 ← DIR ERR
50 P44/CS0 → XTL0
51 P43/A19 → INPUT_ATT
52 P42/A18 → GAIN_SEL
53 P41/A17 → AMUTE
54 P40/A16 → RY_B
55 P37/A15 → RY_C/R
56 P36/A14 → RY_A
57 P35/A13 ← HP DET
58 P34/A12 → RY-AC
59 P33/A11 → MVRATT
60 P32/A10 → LOW_CONSUMPTION
61 P31/A9 → EVR CLK
62 Vcc → 5V
63 P30/A8(/_/D7) → EVR DT
64 Vss → GND
65 P27/A7(/D7/D6) → NC
66 P26/A6(/D6/D5) → 4053INH
67 P25/A5(/D5/D4) → 4053A
68 P24/A4(/D4/D3) → furniture
69 P23/A3(/D3/D2) → SWDET
70 P22/A2(/D2/D1) → VIDEO3
71 P21/A1(/D1/D0) → VIDEO2
72 P20/A0(/D0/_) → VIDEO1
73 P17/D15/INT5 ← OL DET
74 P16/D14/INT4 → NC
75 P15/D13/INT3 ← RDS CLK
76 P14/D12 ← RDS DT
77 P13/D11 → RDS FM+
78 P12/D10 ← TUNED
79 P11/D9 ← STEREO
80 P10/D8 → TMUTE
81 P07/D7 → TUNER DO
82 P06/D6 → TUNER CLK
83 P05/D5 → TUNER DI
84 P04/D4 → TUNER CE
85 P03/D3 → NC
86 P02/D2 → NC
87 P01/D1 → NC
88 P00/D0 → NC
89 P107/AN7/KI3 → NC
90 P106/AN6/KI2 → NC
91 P105/AN5/KI1 → NC
92 P104/AN4/KI0 → NC
93 P103/AN3 → NC
94 P102/AN2 → SIMUKE1
95 P101/AN1 → SIMUKE2
96 AVSS → AVSS
97 P100/AN0 → NC
98 VREF → VREF
99 AVcc → AVCC
100 P97/ADTRG/SIN4 → NC

• Pin Function

No.	Port	Pin Name	I/O	Pin Function
1	P96/ANEX1/SOUT4	NC	I/O	
2	P95/ANEX0/CLK4	DISP RST	I/O	Reset signal to display u-com
3	P94/DA1/TB4IN	DISP EN	I/O	Enable signal to display u-com
4	P93/DA0/TB3IN	DISP RDY	I/O	Ready signal from display u-com
5	P92/TB2IN/SOUT3	DISP DI	I/O	Data out to display u-com
6	P91/TB1IN/SIN3	DISP DO	I/O	Data input from display u-com
7	P90/TB0IN/CLK3	DISP CLK	I/O	Clock signal to display u-com
8	BYTE	GND		
9	CNVss	CNVSS		
10	P87/XCIN	NC	I/O	
11	P86/XCOUT	NC	I/O	
12	RESET	XRESET		
13	XOUT	XOUT		
14	VSS	GND		
15	XIN	XIN		
16	VCC	5V		
17	P85/NMI	NM	I	No use
18	P84/INT2	ACIN(WAKEUP)	I/O	AC pulse input
19	P83/INT1 P85/NMI	1394 INT	I/O	No use (Standby for 1394)
20	P82/INT0	1W WUP	I/O	Wake up signal from display u-com
21	P81/TA4IN/U	DECO MUTE	I/O	1st DSP detect port
22	P80/TA4OUT/U	NECK_SEL	I/O	5.1ch, surround mode and A+B Stereo : H / Stereo : L
23	P77/TA3IN	DC PROT	I/O	AMP DC detect
24	P76/TA3OUT	Boad DET	I/O	AMP INPUT ASSY detect, H : detected
25	P75/TA2IN/W	MIC DET	I/O	MIC detect (VSX-D912 only), L : detect
26	P74/TA2OUT/W	1394 RST	I/O	No use (Standby for 1394)
27	P73/CTS2/RTS2/TA1IN/V	1394 CS	I/O	No use (Standby for 1394)
28	P72/CLK2/TA1OUT/V	1394 CK	I/O	No use (Standby for 1394)
29	P71/RxD2/SCL/TA0IN/TB5IN	1394 DO	I/O	No use (Standby for 1394)
30	P70/TXD2/SDA/TA0OUT	1394 DI	I/O	No use (Standby for 1394)
31	P67/TXD1	232C RXD	I/O	For rewriting 232C (Data output)
32	P66/RxD1	232C TXD	I/O	For rewriting 232C (Data input)
33	P65/CLK1	CLK	I/O	It is necessary when writing for JIG
34	P64/CTS1/RTS1/CLKS1	232C CTS	I/O	For rewriting 232C (Admit communication)
35	P63/TXD0	DSP DI	I/O	Data output signal for communication with DSP and DIR
36	P62/RxD0	DSP DO	I/O	Data input signal for communication with DSP
37	P61/CLK0	DSP CLK	I/O	Clock signal for communication with DSP and DIR
38	P60/CTS0/RTS0	DSP RST	I/O	Reset signal for DSP
39	P57/RDY/CLKOUT	DSP SS	I/O	Srobe select signal to DSP
40	P56/ALE	BUSY	I/O	Use it in MCACC
41	P55/HOLD	DSP HREQ	I/O	DSP error detect signal
42	P54/HLDA	DSP MODE	I/O	Mode select of DSP (ROM/RAM)
43	P53/BCLK	DSP MUTE	I/O	DSP ASSY mute
44	P52/RD	NC	I/O	
45	P51/WRH/BHE	DIR DO	I/O	Data input signal for communication with DIR/DAC
46	P50/WRL/WR	DIR CS	I/O	Chip select signal for communication with DIR/DAC
47	P47/CS3	NC	I/O	
48	P46/CS2	DIR CDC RST	I/O	Reset signal for DIR CODEC
49	P45/CS1	DIR ERR	I/O	lock/unlock signal
50	P44/CS0	XTL0	I/O	DIR X'tal change

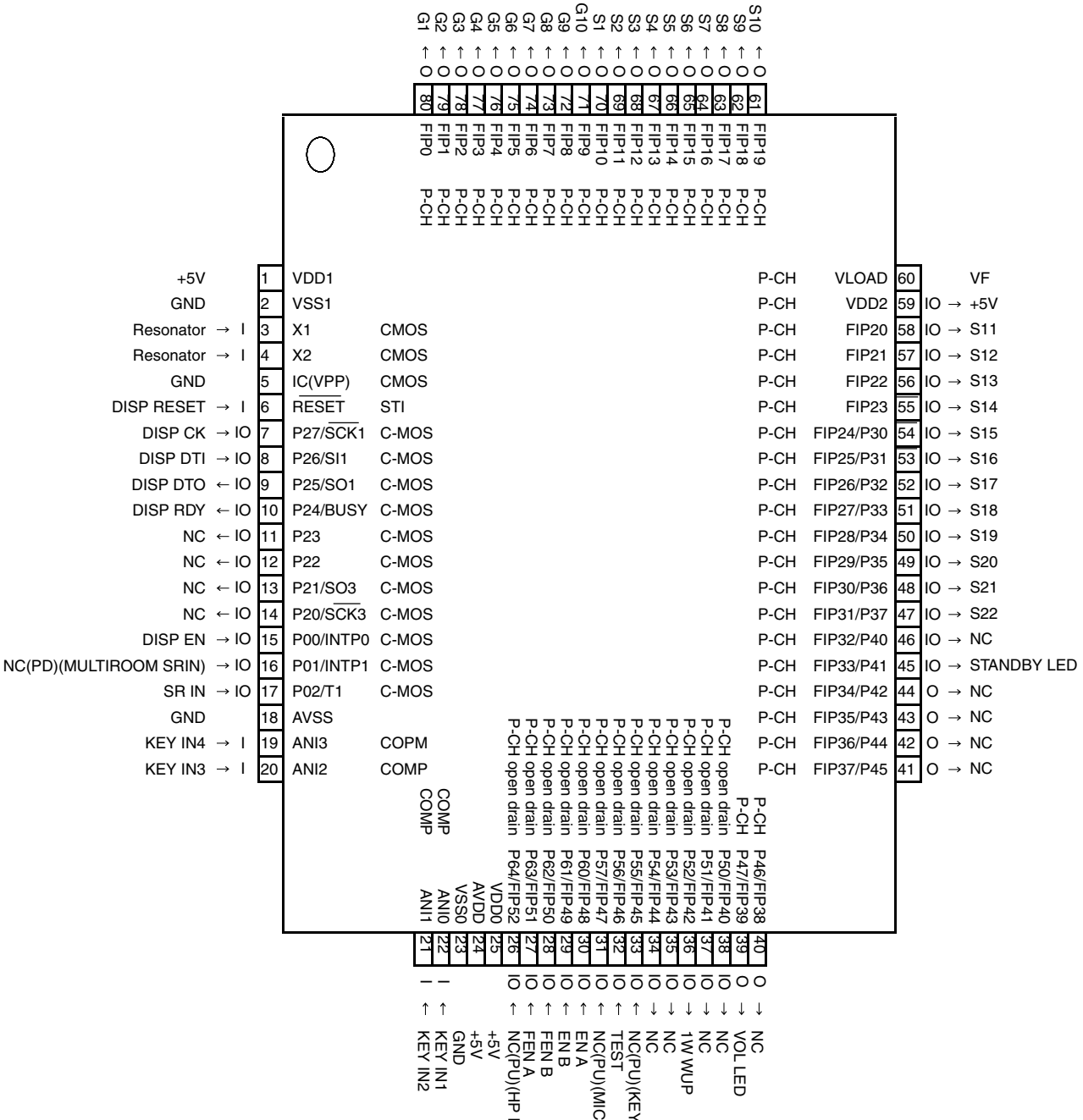
• Pin Function

No.	Port	Pin Name	I/O	Pin Function
51	P43/A19	INPUT_ATT	I/O	Analog input ATT(H : ATT ON)
52	P42/A18	GAIN_SEL	I/O	Gain select (5.1ch and Stereo of analog input : H)
53	P41/A17	AMUTE	I/O	System mute
54	P40/A16	RY_B	I/O	Speaker B relay ON/OFF
55	P37/A15	RY_C/R	I/O	Rear/Center Speaker relay ON/OFF
56	P36/A14	RY_A	I/O	Speaker A relay ON/OFF
57	P35/A13	HP DET	I/O	HP detect, H : detected
58	P34/A12	RY-AC	I/O	AC relay ON/OFF
59	P33/A11	MVRATT	I/O	ATT control of master volume (less than -15dB : L)
60	P32/A10	LOW_CONSUMPTION	I/O	If stop mode, port L, else H
61	P31/A9	EVR CLK	I/O	Clock signal for Function and E-volume
62	Vcc	5V		
63	P30/A8(/_/D7)	EVR DT	I/O	Data signal for Function and E-volume
64	Vss	GND		
65	P27/A7(/D7/D6)	NC	I/O	
66	P26/A6(/D6/D5)	4053INH	I/O	Component terminal control
67	P25/A5(/D5/D4)	4053A	I/O	Component terminal control
68	P24/A4(/D4/D3)	furniture	I/O	Furniture control signal
69	P23/A3(/D3/D2)	SWDET	I/O	SWSP detect
70	P22/A2(/D2/D1)	VIDEO3	I/O	SWSP detect
71	P21/A1(/D1/D0)	VIDEO2	I/O	SWSP detect
72	P20/A0(/D0/_)	VIDEO1	I/O	NJM2296 control (VIDEO input select)
73	P17/D15/INT5	OL DET	I/O	Detect overload of AMP
74	P16/D14/INT4	NC	I/O	
75	P15/D13/INT3	RDS CLK	I/O	Clock input signal for RDS module
76	P14/D12 RDS	DT	I/O	Data input signal for RDS module
77	P13/D11 RDS	FM+	I/O	Power ON/OFF of RDS decoder
78	P12/D10	TUNED	I/O	L : TUNED
79	P11/D9	STEREO	I/O	L :STEREO
80	P10/D8	TMUTE	I/O	Tuner mute
81	P07/D7	TUNER DO	I/O	Data input signal for tuner contorol
82	P06/D6	TUNER CLK	I/O	Clock signal for tuner contorol
83	P05/D5	TUNER DI	I/O	Data output signal for tuner contorol
84	P04/D4	TUNER CE	I/O	Chip select signal for tuner contorol
85	P03/D3	NC	I/O	
86	P02/D2	NC	I/O	
87	P01/D1	NC	I/O	
88	P00/D0	NC	I/O	
89	P107/AN7/KI3	NC	I/O	
90	P106/AN6/KI2	NC	I/O	
91	P105/AN5/KI1	NC	I/O	
92	P104/AN4/KI0	NC	I/O	
93	P103/AN3	NC	I/O	
94	P102/AN2	SIMUKE1	I/O	Input 1 to switch region
95	P101/AN1	SIMUKE2	I/O	Input 2 to switch region
96	AVSS	AVSS		Connect to VSS
97	P100/AN0	NC	I/O	
98	VREF	VREF		Connect to VCC
99	AVcc	AVCC		Connect to VCC
100	P97/ADTRG/SIN4	NC	I/O	

■ PE5346A (FRONT ASSY : IC401)

• **System Control MCU**

■ **Pin Arrangement (Top View)**


1 VDD1 +5V
2 VSS1 GND
3 X1 Resonator → I CMOS
4 X2 Resonator → I CMOS
5 IC(VPP) GND CMOS
6 RESET DISP RESET → I STI
7 P27/SCK1 DISP CK → IO C-MOS
8 P26/SI1 DISP DTI → IO C-MOS
9 P25/SO1 DISP DTO ← IO C-MOS
10 P24/BUSY DISP RDY ← IO C-MOS
11 P23 NC ← IO C-MOS
12 P22 NC ← IO C-MOS
13 P21/SO3 NC ← IO C-MOS
14 P20/SCK3 NC ← IO C-MOS
15 P00/INTP0 DISP EN → IO C-MOS
16 P01/INTP1 NC(PD)(MULTIROOM SRIN) → IO C-MOS
17 P02/T1 SR IN → IO C-MOS
18 AVSS GND
19 ANI3 KEY IN4 → I COPM
20 ANI2 KEY IN3 → I COMP
21 ANI1 COMP P-CH open drain
22 ANI0 COMP P-CH open drain
23 VSS0 P-CH open drain
24 AVDD P-CH open drain
25 VDD0 P-CH open drain
26 P64/FIP52 P-CH open drain
27 P63/FIP51 P-CH open drain
28 P62/FIP50 P-CH open drain
29 P61/FIP49 P-CH open drain
30 P60/FIP48 P-CH open drain
31 P57/FIP47 P-CH open drain
32 P56/FIP46 P-CH open drain
33 P55/FIP45 P-CH open drain
34 P54/FIP44 P-CH open drain
35 P53/FIP43 P-CH open drain
36 P52/FIP42 P-CH open drain
37 P51/FIP41 P-CH open drain
38 P50/FIP40 P-CH open drain
39 P47/FIP39 P-CH
40 P46/FIP38 P-CH
41 FIP37/P45 P-CH O → NC
42 FIP36/P44 P-CH O → NC
43 FIP35/P43 P-CH O → NC
44 FIP34/P42 P-CH O → NC
45 FIP33/P41 P-CH IO → STANDBY LED
46 FIP32/P40 P-CH IO → NC
47 FIP31/P37 P-CH IO → S22
48 FIP30/P36 P-CH IO → S21
49 FIP29/P35 P-CH IO → S20
50 FIP28/P34 P-CH IO → S19
51 FIP27/P33 P-CH IO → S18
52 FIP26/P32 P-CH IO → S17
53 FIP25/P31 P-CH IO → S16
54 FIP24/P30 P-CH IO → S15
55 FIP23 P-CH IO → S14
56 FIP22 P-CH IO → S13
57 FIP21 P-CH IO → S12
58 FIP20 P-CH IO → S11
59 VDD2 P-CH IO → +5V
60 VLOAD P-CH VF
61 FIP19 P-CH O → S10
62 FIP18 P-CH O → S9
63 FIP17 P-CH O → S8
64 FIP16 P-CH O → S7
65 FIP15 P-CH O → S6
66 FIP14 P-CH O → S5
67 FIP13 P-CH O → S4
68 FIP12 P-CH O → S3
69 FIP11 P-CH O → S2
70 FIP10 P-CH O → S1
71 FIP9 P-CH O → G10
72 FIP8 P-CH O → G9
73 FIP7 P-CH O → G8
74 FIP6 P-CH O → G7
75 FIP5 P-CH O → G6
76 FIP4 P-CH O → G5
77 FIP3 P-CH O → G4
78 FIP2 P-CH O → G3
79 FIP1 P-CH O → G2
80 FIP0 P-CH O → G1
I ↑ KEY IN2
I ↑ KEY IN1
GND
+5V
+5V
IO ↑ NC(PU)(HP IN)
IO ↑ FEN A
IO ↑ FEN B
IO ↑ EN B
IO ↑ EN A
IO ↑ NC(PU)(MIC IN)
IO ↑ TEST
IO ↑ NC(PU)(KEY5)
IO ↓ NC
IO ↓ NC
IO ↓ 1W WUP
IO ↓ NC
IO ↓ NC
O ↓ VOL LED
O ↓ NC

• Pin Function

No.	Port	Pin Name	I/O	Pin Function
1	VDD1	+5V	-	positive power supply
2	VSS1	GND	-	ground potential
3	X1	Resonator	I	crystal connection for system clock oscillation
4	X2	Resonator	I	crystal connection for system clock oscillation
5	IC(VPP)	GND	-	
6	RESET	DISP RESET	I	receive reset signal from main u-com
7	P27/SCK1	DISP CK	I/O	clock signal from main u-com
8	P26/SI1	DISP DTI	I/O	datain from main u-com
9	P25/SO1	DISP DTO	I/O	data out to main u-com
10	P24/BUSY	DISP RDY	I/O	ready signal from main u-com
11	P23	NC	I/O	
12	P22	NC	I/O	
13	P21/SO3	NC	I/O	
14	P20/SCK3	NC	I/O	
15	P00/INTP0	DISP EN	I/O	enable signal from main u-com
16	P01/INTP1	NC	I/O	
17	P02/T1	SR IN	I/O	remote control signal input from main room
18	AVSS	GND	-	ground potential for A/D converter
19	ANI3	KEY IN4	I	
20	ANI2	KEY IN3	I	
21	ANI1	KEY IN2	I	
22	ANI0	KEY IN1	I	
23	VSS0	GND	-	ground potential for ports
24	AVDD	'+5V	-	analog power voltage input to A/D converter
25	VDD0	'+5V	-	positive power supply to ports
26	P64/FIP52	NC	I/O	
27	P63/FIP51	FEN A	I/O	MULTI JOG(Right)
28	P62/FIP50	FEN B	I/O	MULTI JOG(Left)
29	P61/FIP49	EN B	I/O	VOLUME JOG1(-)
30	P60/FIP48	EN A	I/O	VOLUME JOG1(+)
31	P57/FIP47	NC	I/O	
32	P56/FIP46	TEST	I/O	test mode input for checker
33	P55/FIP45	NC	I/O	
34	P54/FIP44	NC	I/O	
35	P53/FIP43	NC	I/O	
36	P52/FIP42	1W WUP	I/O	output wakeup signal to main u-com
37	P51/FIP41	NC	I/O	
38	P50/FIP40	NC	I/O	
39	P47/FIP39	VOL LED	I/O	LED Output
40	P46/FIP38	NC	I/O	

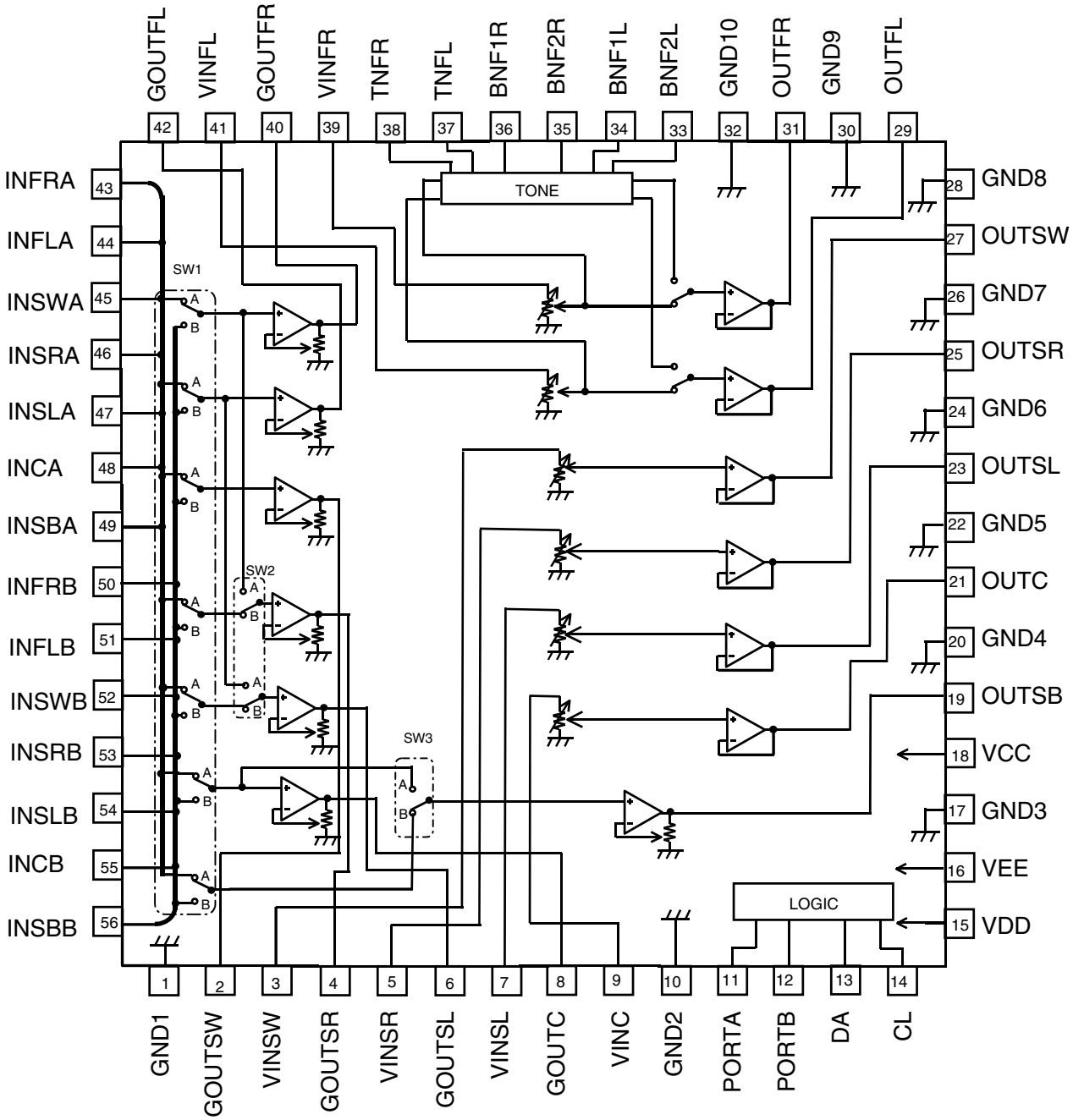
• Pin Function

No.	Port	Pin Name	I/O	Pin Function
41	FIP37/P45	NC	I/O	
42	FIP36/P44	NC	/O	
42	FIP35/P43	NC	I/O	
44	FIP34/P42	NC	I/O	
45	FIP33/P41	STANDBY LED	I/O	LED Output
46	FIP32/P40	NC	I/O	
47	FIP31/P37	S22	I/O	Display
48	FIP30/P36	S21	I/O	Display
49	FIP29/P35	S20	I/O	Display
50	FIP28/P34	S19	I/O	Display
51	FIP27/P33	S18	I/O	Display
52	FIP26/P32	S17	I/O	Display
53	FIP25/P31	S16	I/O	Display
54	FIP24/P30	S15	I/O	Display
55	FIP23	S14	O	Display
56	FIP22	S13	O	Display
57	FIP21	S12	O	Display
58	FIP20	S11	O	Display
59	VDD2	'+5V	-	positive power supply to FIP controller.
60	VLOAD	VF	-	pull down resistor connection of FIP controller
61	FIP19	S10	O	Display
62	FIP18	S9	O	Display
63	FIP17	S8	O	Display
64	FIP16	S7	O	Display
65	FIP15	S6	O	Display
66	FIP14	S5	O	Display
67	FIP13	S4	O	Display
68	FIP12	S3	O	Display
69	FIP11	S2	O	Display
70	FIP10	S1	O	Display
71	FIP9	G10	O	Display
72	FIP8	G9	O	Display
73	FIP7	G8	O	Display
74	FIP6	G7	O	Display
75	FIP5	G6	O	Display
76	FIP4	G5	O	Display
77	FIP3	G4	O	Display
78	FIP2	G3	O	Display
79	FIP1	G2	O	Display
80	FIP0	G1	O	Display

■ BD3813KS (MAIN ASSY : IC108)

• 6.1ch Audio Sound Processor

■ Block Diagram



• Description of terminal

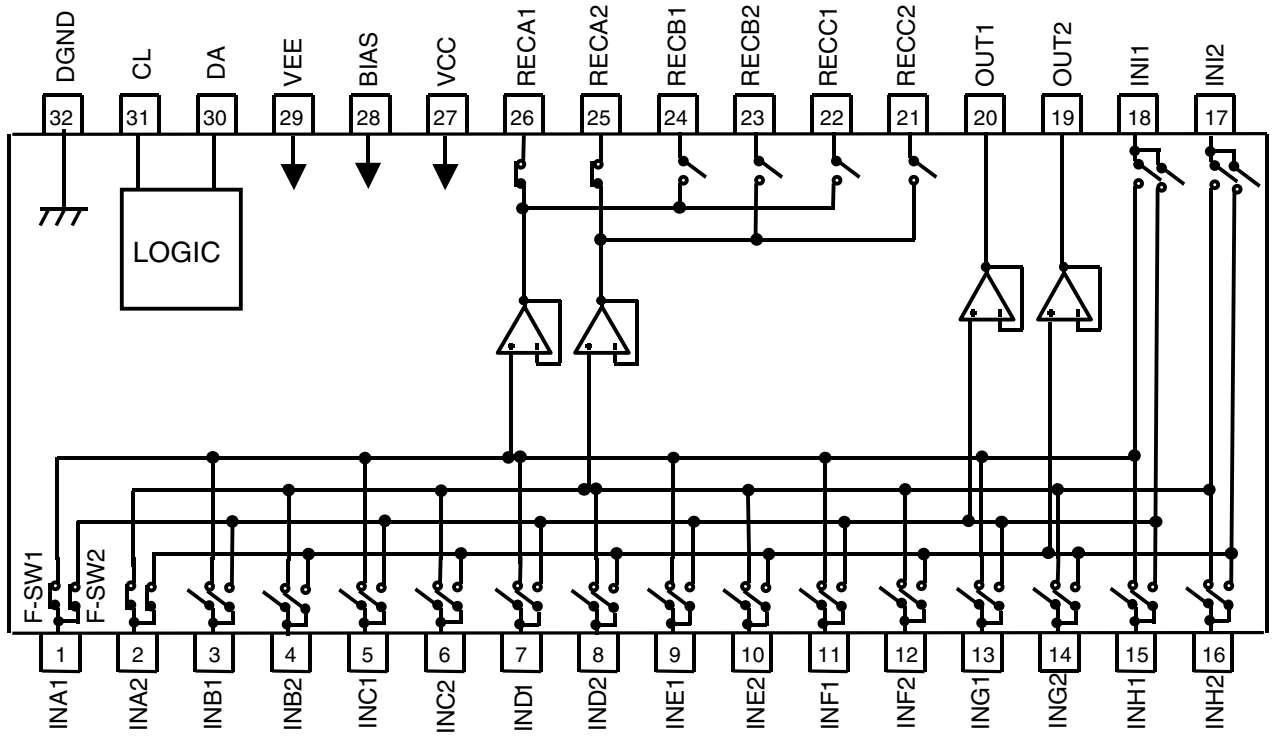
Terminal Number	Terminal Name	Description	Terminal Number	Terminal Name	Description
1	GND1	Ground terminal	14	CL	Serial clock input terminal
2	GOUTSW	Sub woofer input gain output terminal	15	VDD	Power supply terminal for port
3	VINSW	Subwoofer volume input terminal	16	VEE	(-)Power supply terminal
4	GOUTSR	Surround Rch input gain output terminal	17	GND3	Ground terminal
5	VINSR	Surround Rch volume input terminal	18	VCC	(+)Power supply terminal
6	GOUTSL	Surround Lch input gain output terminal	19	OUTSB	Surround backoutput terminal
7	VINSL	Surround Lch volume input terminal	20	GND4	Ground terminal
8	GOUTC	Center speakerinput gain output terminal	21	OUTC	Center speaker output terminal
9	VINC	Center speaker volume input terminal	22	GND5	Ground terminal
10	GND2	Ground terminal	23	OUTSL	Surround Lch output terminal
11	PORTA	Output terminal for port	24	GND6	Ground terminal
12	IPORTB	Output terminal for port	25	OUTSR	Surround Rch output terminal
13	DA	Serial data and latch input terminal	26	GND7	Ground terminal

Terminal Number	Terminal Name	Description	Terminal Number	Terminal Name	Description
27	OUTSW	Sub woofer output terminal	42	GOUTFL	Lch input gain output terminal
28	GND8	Ground terminal	43	INFRA	Rch DVD inputterminal
29	OUTFL	Lch output terminal	44	INFLA	Lch DVD input terminal
30	GND9	Ground terminal	45	INSWA	SWch DVD input terminal
31	OUTFR	Rch output terminal	46	INSRA	SRch DVD input terminal
32	GND10	Ground terminal	47	INSLA	SLch DVD input terminal
33	BNF2L	Lch bass filter terminal 2	48	INCA	Cch DVD input terminal
34	BNF1L	Lch bass filter terminal 1	49	INSBA	SBch DVD input terminal
35	BNF2R	Rch bass filter terminal 2	50	INFRB	Rch DSP input terminal
36	BNF1R	Lch bass filter terminal 1	51	INFLB	Lch DSP input terminal
37	TNFL	Lch treble filter terminal	52	INSWB	SWch DSP input terminal
38	TNFR	Rch treble filter terminal	53	INSRB	SRch DSP input terminal
39	VINFR	Rch volume Input terminal	54	INSLB	SLch DSP input terminal
40	GOUTFR	Rch input gain output terminal	55	INCB	Cch DSP input terminal
41	VINFL	Lch volume Input terminal	56	INSBB	SBch DSP input terminal

■ BD3841FS (MAIN ASSY : IC101)

• 9ch Function Switch

■ Block Diagram



* F-SW1 : INPUT FUNCTION1
F-SW2 : INPUT FUNCTION2

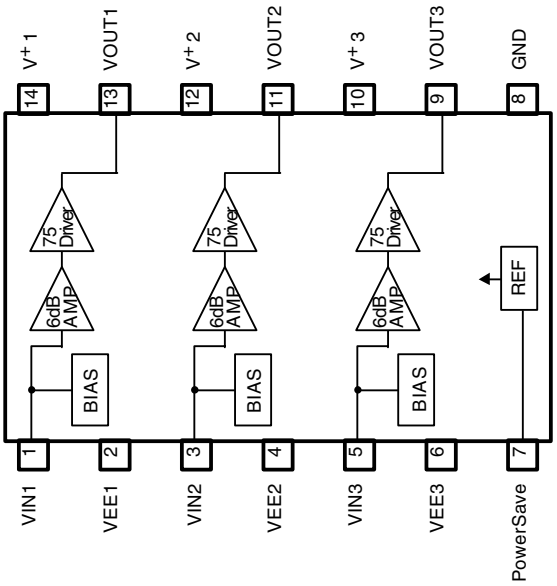
• Description of terminal

Terminal Number	Terminal Name	Description	Terminal Number	Terminal Name	Description
1	INA1	A 1ch input terminal	17	INI2	I 2ch input terminal
2	INA2	A 2ch input terminal	18	INI1	I 1ch input terminal
3	INB1	B 1ch input terminal	19	OUT2	2ch output terminal
4	INB2	B 2ch input terminal	20	OUT1	1ch output terminal
5	INC1	C 1ch input terminal	21	RECC2	C 2ch REC output terminal
6	INC2	C 2ch input terminal	22	RECC1	C 1ch REC output terminal
7	IND1	D 1ch input terminal	23	RECB2	B 2ch REC output terminal
8	IND2	D 2ch input terminal	24	RECB1	B 1ch REC output terminal
9	INE1	E1ch input terminal	25	RECA2	A 2ch REC output terminal
10	INE2	E 2ch input terminal	26	RECA1	A 1ch REC output terminal
11	INF1	F 1ch input terminal	27	VCC	(+)Power supply terminal
12	INF2	F 2ch input terminal	28	BIAS	Bias input terminal
13	ING1	G1ch input terminal	29	VEE	(-)Power supply terminal
14	ING2	G2ch input terminal	30	DA	Serial date anlatch input terminal
15	INH1	H 1ch input terminal	31	CL	Serial clock input terminal
16	INH2	H 2ch input terminal	32	DGND	Digital ground terminal

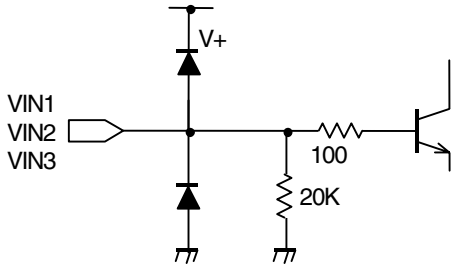
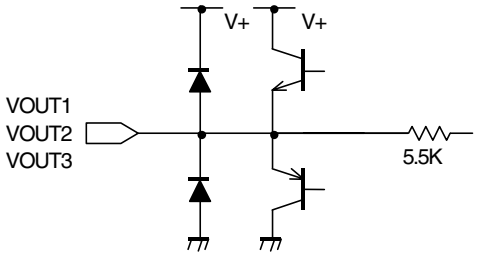
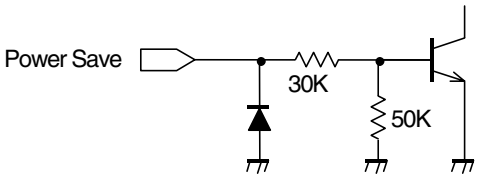
■ NJM2581 (COMPONENT ASSY : IC552)

• DUAL SUPPLY WIDE BAND 3ch VIDEO AMPLIFIER

■ Block Diagram



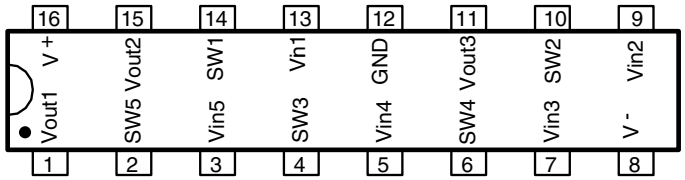
■ Equivalent Circuit

PIN No.	PIN NAME	FUNCTION	INSIDE EQUIVALENT CIRCUIT
1 3 5	VIN1 VIN2 VIN3	Input	
13 11 9	VOUT1 VOUT2 VOUT3	Output	
7	Power Save	Power Save	
14 12 10	V^+1 V^+2 V^+3	V+	
2 4 6	VEE1 VEE2 VEE3	V-	
8	GND	GND	

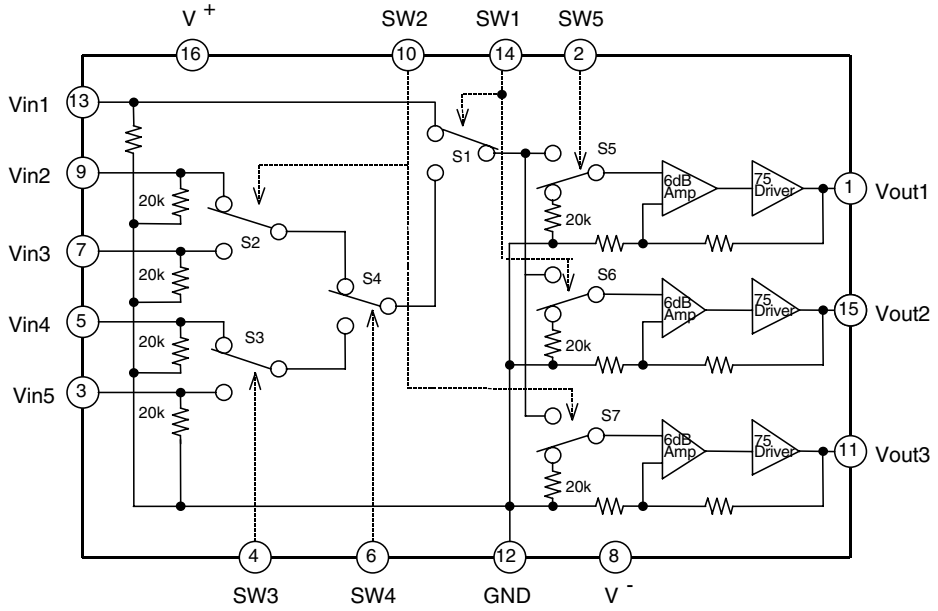
■ NJM2595 (VIDEO ASSY : IC301) (S. VIDEO ASSY : IC351, IC352)

• 5 input 3 output video SW for AV

■ Pin Arrangement (Top View)



■ Block Diagram



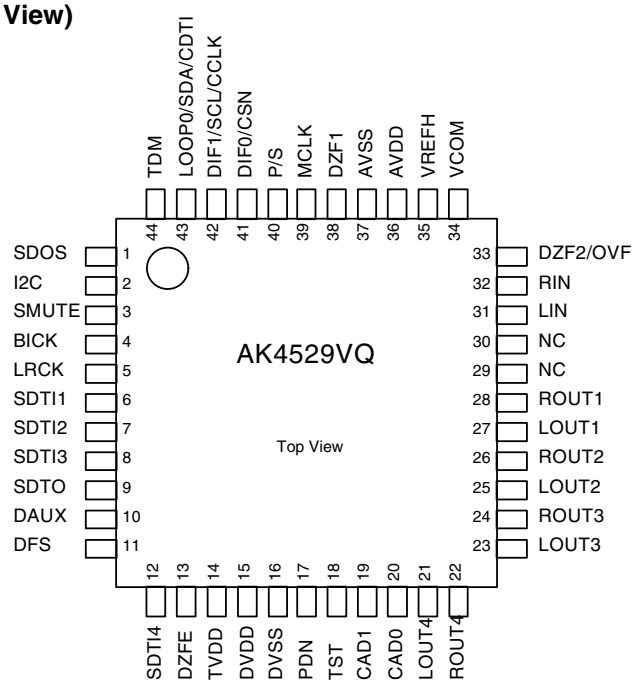
■ SW list for input and output (L=VCL,H=VCH,X=LorH)

SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
L	H	X	X	H	Vin1	MUTE	Vin1
	L			H	Vin1	MUTE	MUTE
	H			L	MUTE	MUTE	Vin1
H	L	X	L	H	Vin2	Vin2	MUTE
				L	MUTE	Vin2	MUTE
H	H	X	L	H	Vin3	Vin3	Vin3
				L	MUTE	Vin3	Vin3
H	H	L	H	H	Vin4	Vin4	Vin4
	H			L	MUTE	Vin4	Vin4
	L			H	Vin4	Vin4	MUTE
	L			L	MUTE	Vin4	MUTE
H	H	H	H	H	Vin5	Vin5	Vin5
	H			L	MUTE	Vin5	Vin5
	L			H	Vin5	Vin5	MUTE
	L			L	MUTE	Vin5	MUTE
L	L	X	X	L	MUTE	MUTE	MUTE

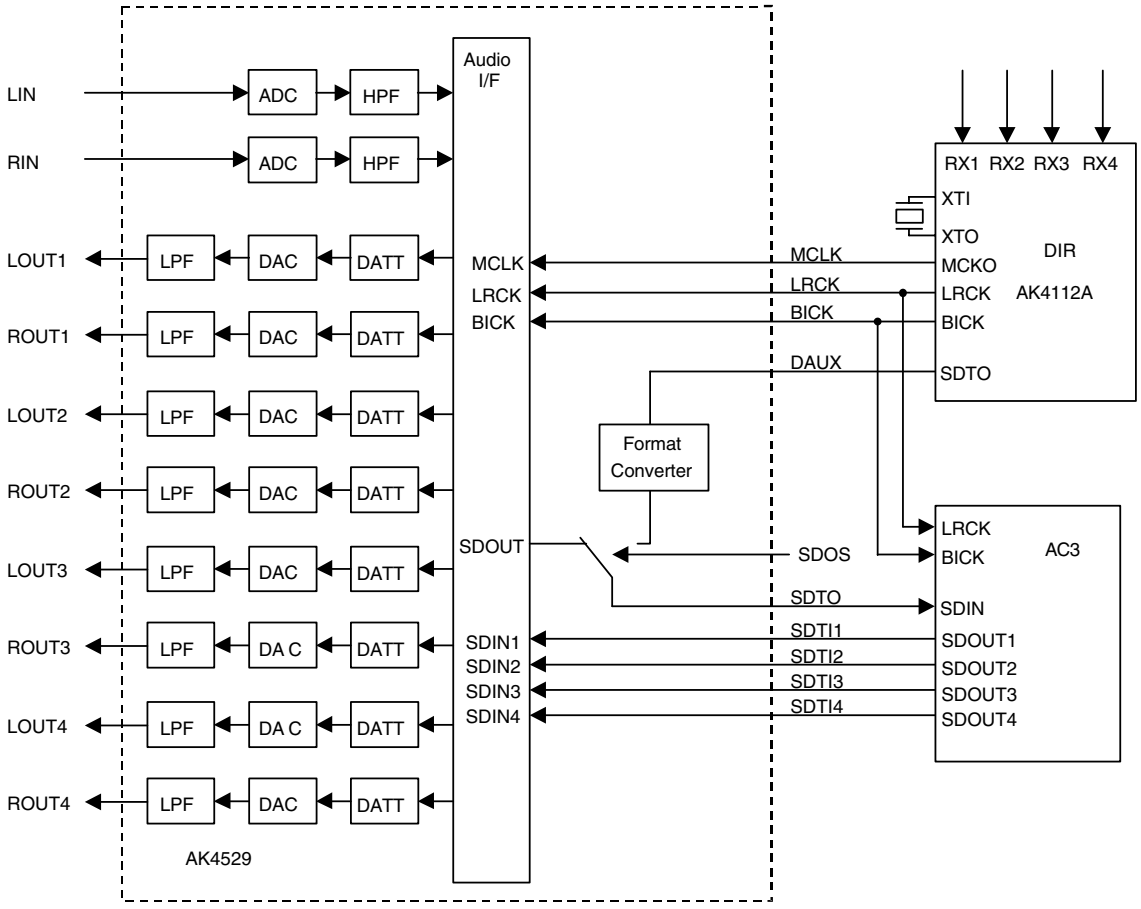
■ AK4529VQ (DSP ASSY : IC8401)

• **High Performance Multi-channel Audio CODEC**

■ Pin Arrangement (Top View)



■ Block Diagram



Block Diagram (DIR and AC-3 DSP are external parts)

• Pin Function

No.	Pin Name	I/O	Function
1	SDOS	I	SDTO Source Select Pin (Note 1) "L" : Internal ADC output, "H" : DAUX input SDOS pin should be set to "L" when TDM= "1".
2	I2C	I	Control Mode Select Pin "L" : 3-wire Serial, "H" : I ^{2}C Bus
3	SMUTE	I	Soft Mute Pin (Note 1) When this pin goes to "H", soft mute cycle is initialized. When returning to "L", the output mute releases.
4	BICK	I	Audio Serial Data Clock Pin
5	LRCK	I	Input Channel Clock Pin
6	SDTI1	I	DAC1 Audio Serial Data Input Pin
7	SDTI2	I	DAC2 Audio Serial Data Input Pin
8	SDTI3	I	DAC3 Audio Serial Data Input Pin
9	SDTO	O	Audio Serial Data Output Pin
10	DAUX	I	AUX Audio Serial Data Input Pin
11	DFS	I	Double Speed Sampling Mode Pin (Note 1) "L" : Normal Speed, "H" : Double Speed
12	SDTI4	I	DAC4 Audio Serial Data Input Pin
13	DZFE	I	Zero Input Detect Enable Pin "L" : mode 7 (disable) at parallel mode, zero detect mode is selectable by DZFM3-0 bits at serial mode "H" : mode 0 (DZF1 is AND of all eight channels)
14	TVDD	-	Output Buffer Power Supply Pin, 2.7V~5.5V
15	DVDD	-	Digital Power Supply Pin, 4.5V~5.5V
16	DVSS	-	Digital Ground Pin, 0V
17	PDN	I	Power-Down & Reset Pin When "L", the AK4529 is powered-down and the control registers are reset to default state. If the state of P/S or CAD0-1 changes, then the AK4529 must be reset by PDN.
18	TST	I	Test Pin This pin should be connected to DVSS.
19	CAD1	I	Chip Address 1 Pin
20	CAD0	I	Chip Address 0 Pin
21	LOUT4	O	DAC4 Lch Analog Output Pin
22	ROUT4	O	DAC4 Rch Analog Output Pin

• Pin Function

No.	Pin Name	I/O	Function
23	LOUT3	O	DAC3 Lch Analog Output Pin
24	ROUT3	O	DAC3 Rch Analog Output Pin
25	LOUT2	O	DAC2 Lch Analog Output Pin
26	ROUT2	O	DAC2 Rch Analog Output Pin
27	LOUT1	O	DAC1 Lch Analog Output Pin
28	ROUT1	O	DAC1 Rch Analog Output Pin
29	NC	-	No Connect No internal bonding.
30	NC	-	No Connect No internal bonding.
31	LIN	I	Lch Analog Input Pin
32	RIN	I	Rch Analog Input Pin
33	DZF2	O	Zero Input Detect 2 Pin (Note 2) When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
	OVF	O	Analog Input Overflow Detect Pin (Note 3) This pin goes to "H" if the analog input of Lch or Rch is overflows.
34	VCOM	O	Common Voltage Output Pin, AVDD/2 Large external capacitor around 2.2µF is used to reduce power-supply noise.
35	VREFH	I	Positive Voltage Reference Input Pin, AVDD
36	AVDD	-	Analog Power Supply Pin, 4.5V~5.5V
37	AVSS	-	Analog Ground Pin, 0V
38	DZF1	O	Zero Input Detect 1 Pin (Note 2) When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
39	MCLK	I	Master Clock Input Pin
40	P/S	I	Parallel/Serial Select Pin "L" : Serial control mode, "H" :Parallel control mode
41	DIF0	I	Audio Data Interface Format 0 Pin in parallel control mode
	CSN	I	Chip Select Pin in 3-wire serial control mode This pin should be connected toDVDD at I^2C bus control mode
42	DIF1	I	Audio Data Interface Format 1 Pin in parallel control mode
	SCL/CCLK	I	Control Data Clock Pin in serial control mode I2C= "L" : CCLK (3-wire Serial), I2C = "H" : SCL (I^2C Bus)
43	LOOP0	I	Loopback Mode 0 Pin in parallel control mode Enables digital loop-back from ADC to 4 DACs.
	SDA/CDTI	I/O	Control Data Input Pin in serial control mode I2C= "L" : CDTI (3-wire Serial), I2C = "H" : SDA (I^2C Bus)
44	TDM	I	TDM I/F Format Mode Pin (Note 1) "L" : Normal format, "H" :TDM format

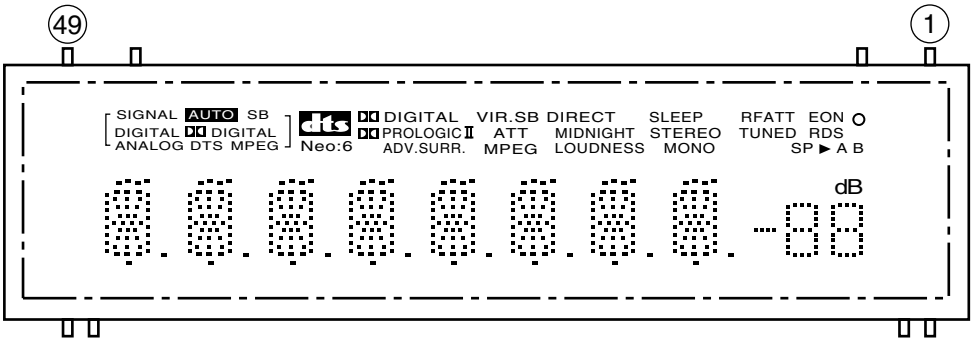
Notes: 1. SDOS, SMUTE, DFS, and TDM pins are ORed with register data if P/S = "L".
2. The group 1 and 2 can be selected by DZFM3-0 bits if P/S = "L" and DZFE = "L".
3. This pin becomes OVF pin if OVFE bit is set to "1" at serial control mode.
4. All input pins should not be left floating.

7.2.2 DISPLAY

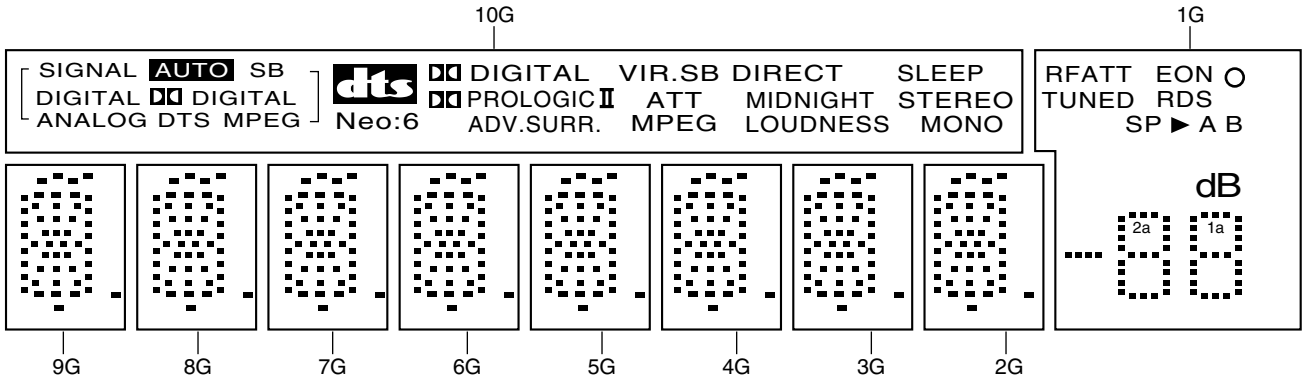
■ XAV3018 (FRONT ASSY : V401)

• FL DISPLAY

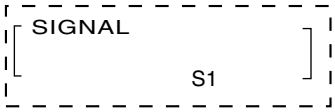
• Pin Assignment



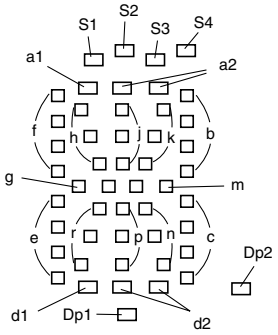
• Grid Assignment



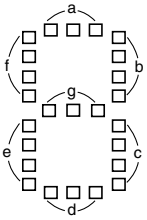
• Segment Designation



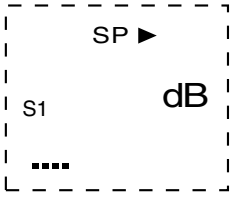
(10G)



(2G to 9G)



(1G)



(1G)

• Pin Connection

Pin No.	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Connection	F2	F2	NP	NP	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	

NOTE 1) F1, F2..... Filament
2) NP..... No pin
3) NX..... No extend pin
4) DL..... Datum Line
5) 1G to 10G..... Grid
6) Field of vision is a minimum of 21.8° from the lower side.

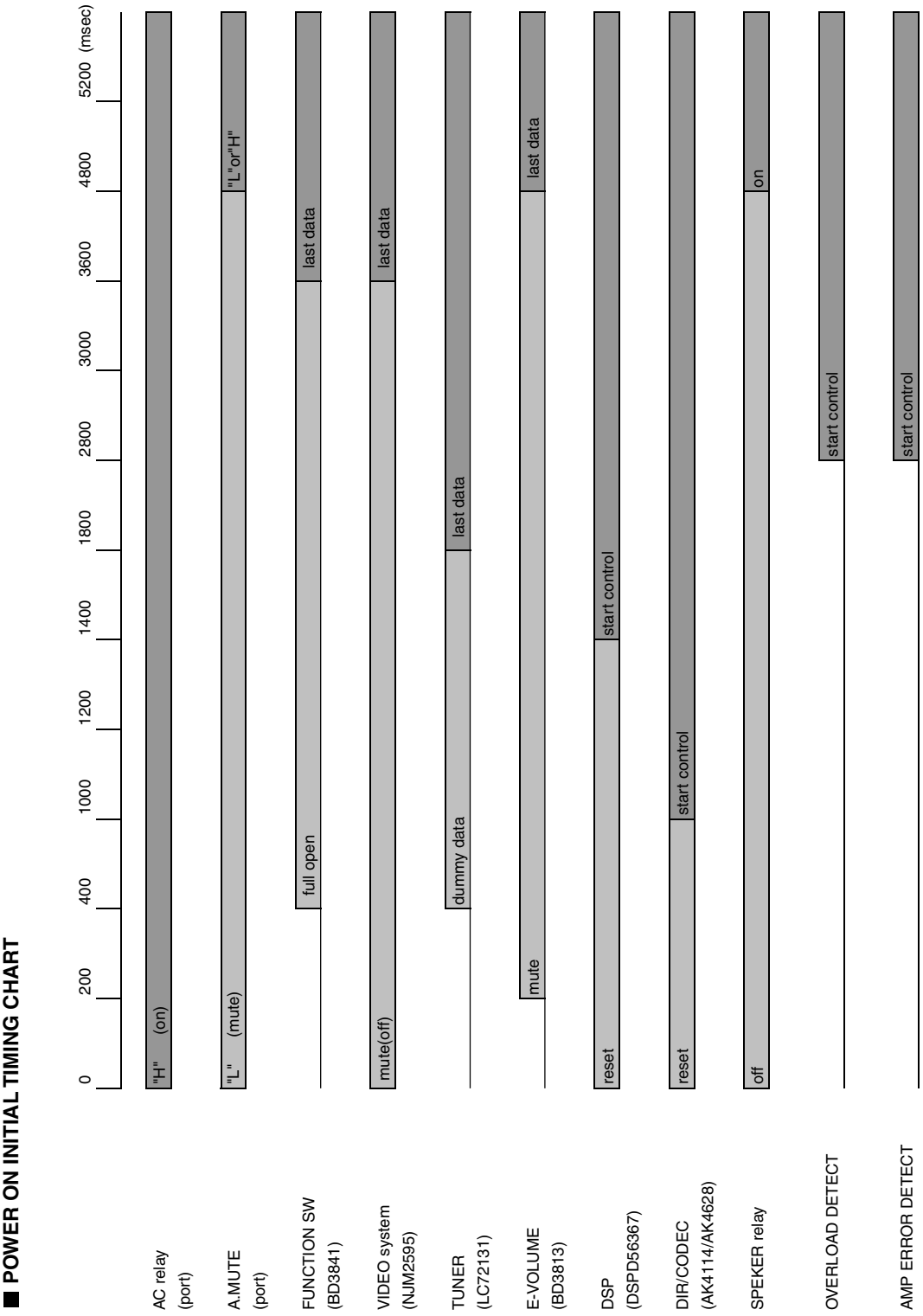
• Anode Connection

	10G	9G-2G	1G
P1	S1	a1	RFATT
P2	AUTO	a2	EON
P3	SB	h	○
P4	DIGITAL	j	TUNED
P5	ANALOG	k	RDS
P6	DIGITAL (L)	b	S1
P7	DTS	f	A
P8	MPEG	m	B
P9	dts	g	1a
P10	MPEG	c	1b
P11	DIGITAL (R)	e	1f
P12	PROLOGIC Π	r	1g
P13	Neo:6	p	1c
P14	VIR.SB	n	1e
P15	ADV.SURR.	d1	1d
P16	ATT	d2	2a
P17	DIRECT		2b
P18	MIDNIGHT		2f
P19	LOUDNESS	S1	2g
P20	SLEEP	S4	2c
P21	STEREO	S2	2e
P22	MONO	S3	2d

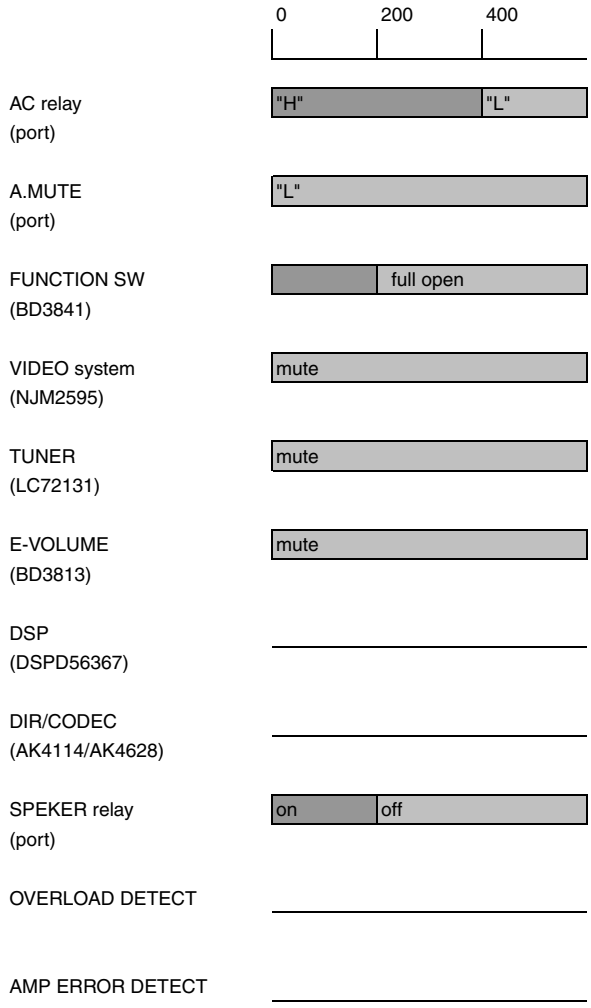
7.3 EXPLANATION

7.3.1 POWER ON AND OFF INITIAL TIMING CHART

■ **POWER ON INITIAL TIMING CHART**



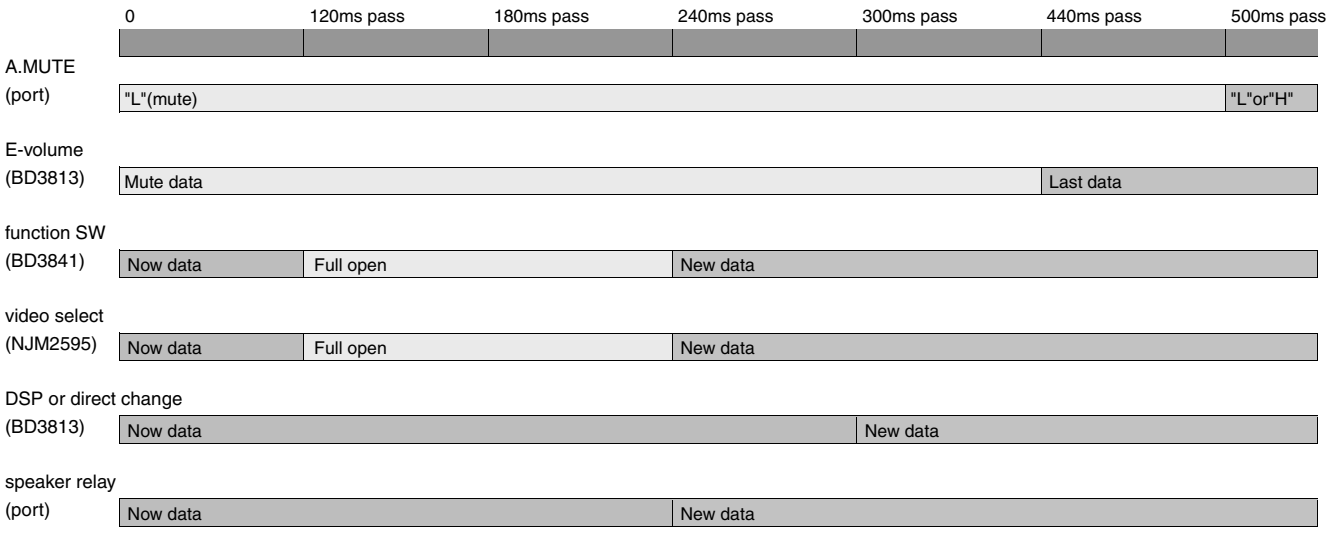
■ POWER OFF INITIAL TIMING CHART



7.3.2 IC DATA TRANSMISSION TIMING CHART

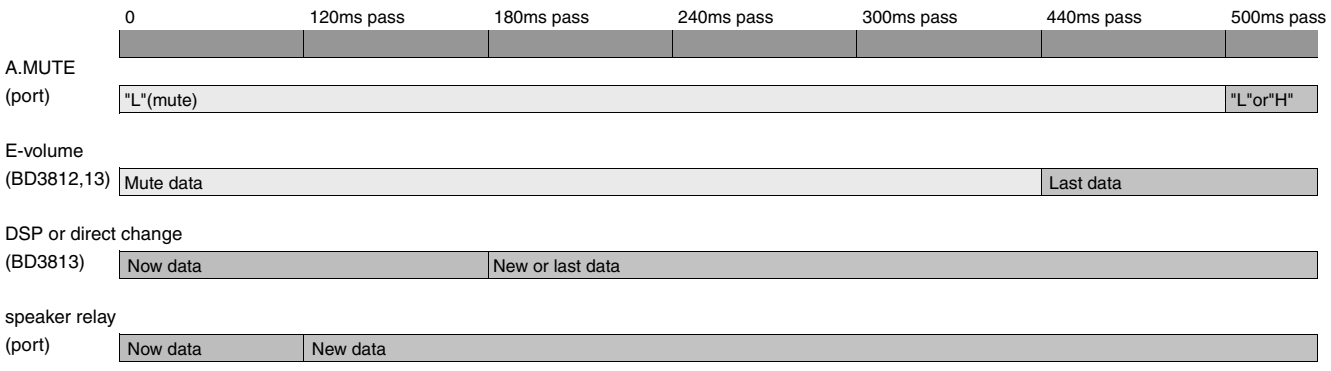
■ IC data transmission timing chart

1.When function chage



condition of mute cancel (system mute & E-volume mute)
1) when tuner mute during Tuner function
2) when communicate to DSP
3) when initial processing
4) when detect trouble of AMP DC
5) when detect overload of AMP
6) when Power off
7) when muting by key input

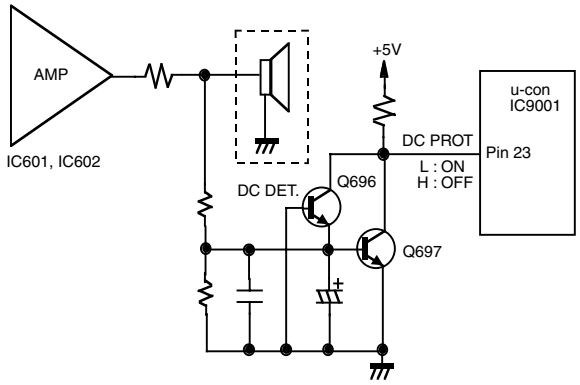
2.When except function chage



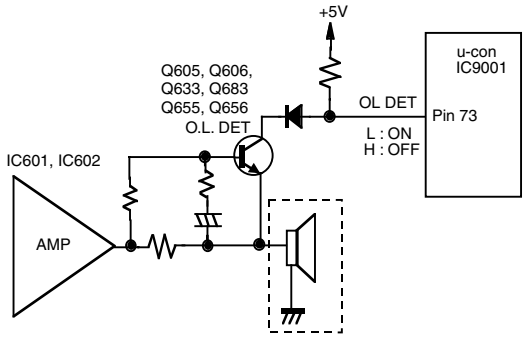
condition of mute cancel (system mute & E-volume mute)
1) when tuner mute during Tuner function
2) when communicate to DSP
3) when initial processing
4) when detect trouble of AMP DC
5) when detect overload of AMP
6) when Power off
7) when muting by key input

7.3.3 DETECTION CIRCUIT

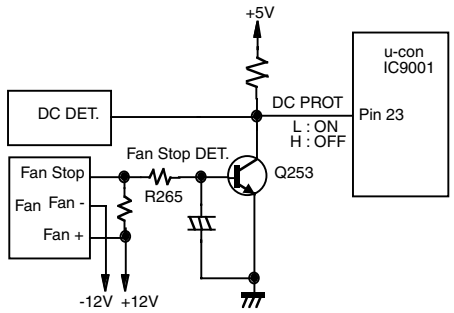
1.DC Detection Circuit Diagram:



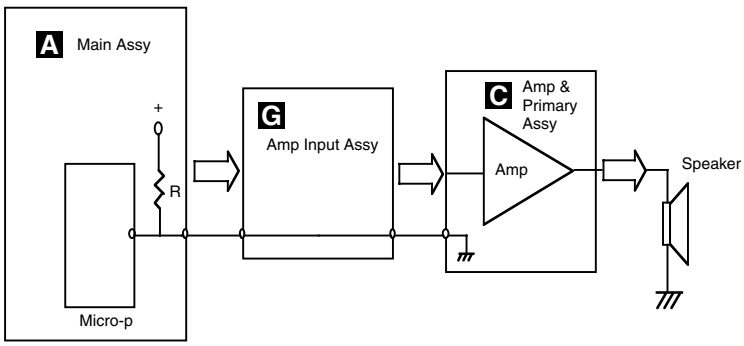
2. Overload Detection Circuit Diagram:



3. Fan Stop Prottection Circuit Diagram:



4. PCB Board Protection Circuit Diagram



7.3.4 AMPLIFIER SYSTEM PROTECTION OPERATION SPECIFICATION

1. DC-abnormality detection

In the case of simultaneous detection with the overload protection circuit,
DC-abnormality detection is performed preferentially to overload detection.

When a DC abnormality is detected, A.MUTE* is turned on, speaker relay is turned off, then "AMP_ERR" flashes on the display.

*A.MUTE : Audio mute command

↓

The abnormality continues for 3 seconds.

↓ Continues.

The power is shut off.

↓

The power key is disabled and Standby LED blinks.

↓ Recovery

The program restarts.

But be switched on with the following methods.
① TESTMODE ON (A55F+A55F)
② When power off, push FRONT ENTER key + ADVANCED SURROUND key continuously 2sec.
(②: When a DC abnormality is detected and the power is shut off.)

2. Overload detection

When an overload is detected, A.MUTE* is turned on, speaker relay is turned off, then "OVERLOAD" flashes on the display.

↓

The abnormality continues for 3 seconds.

↓ Continues.

The power is shut off.

↓ Recovery

The power is shut off even if the unit recovers.

3. Boad detection

In the case of simultaneous detection with the overload protection circuit,
Board detection is performed preferentially to DC-abnormality detection and Overload detection.

When an boad erreo is detected, A.MUTE* is turned on, speaker relay is turned off, then "BOAD ERR" flashes on the display.

↓

The abnormality continues for 3 seconds.

↓ Continues.

The power is shut off.

↓ Recovery

The power is shut off even if the unit recovers.

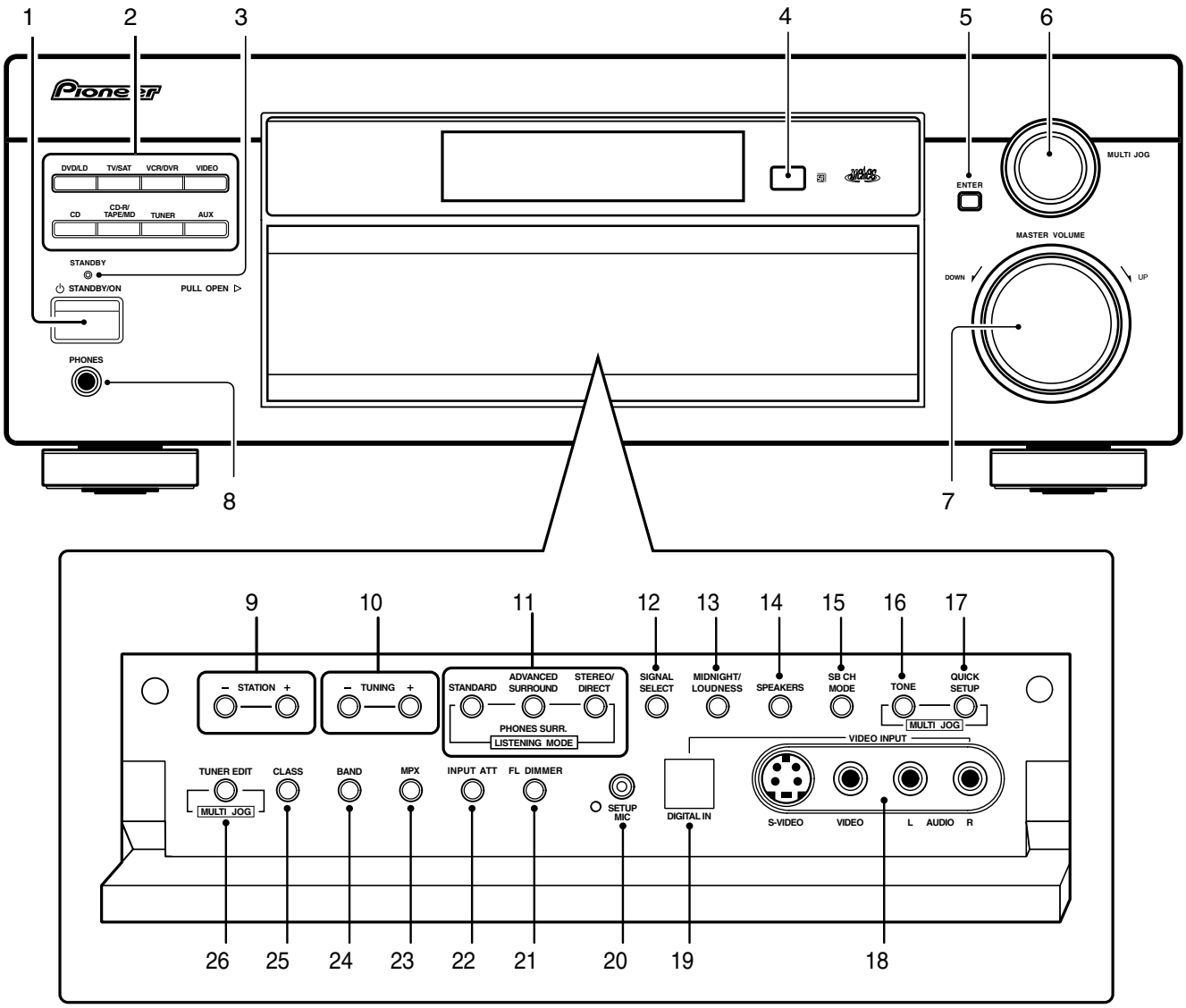
7.4 CLEANING

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. PANEL FACILITIES

Front panel



1 ⏻ STANDBY/ON
Switches the receiver between on and standby.

2 Input select buttons
Press to select an input source.

3 STANDBY indicator
Lights when the receiver is in standby.

4 Remote sensor
Receives the signals from the remote control.

5 ENTER

6 MULTI JOG dial
The MULTI JOG dial performs a number of tasks. Use it to select options after pressing TONE, QUICK SETUP or TUNER EDIT.

7 MASTER VOLUME

8 PHONES jack
Use to connect headphones. When the headphones are connected, there is no sound output from the speakers.

9 STATION +/– buttons
Selects station presets when using the tuner.

10 TUNING +/– buttons
Selects the frequency when using the tuner.

11 LISTENING MODE buttons

STANDARD
Press for Standard decoding and to switch between the various Pro Logic II and Neo:6 options.

ADVANCED SURROUND
Use to switch between the various surround modes.

STEREO/DIRECT
Switches between direct and stereo playback. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

12 SIGNAL SELECT
Use to select an input signal.

13 MIDNIGHT/LOUDNESS
Use Midnight when listening to movie soundtracks at low volume. Use Loudness to boost the bass and treble at low volume.

14 SPEAKERS
Use to cycle through the speaker system:
A → B → A+B

15 SB CH MODE
Selects the Surround back channel mode.

16 TONE
Press this button to access the bass and treble controls, which you can then adjust with the MULTI JOG dial.

17 QUICK SETUP
See Using the Quick Setup on.

18 VIDEO INPUT
See Connecting to the front panel video terminal.

19 DIGITAL IN
See Connecting to the front panel video terminal.

20 SETUP MIC
Connect the microphone supplied with your system to the SETUP MIC jack when using the auto surround setup (MCACC).

21 FL DIMMER
Use this button to make the fluorescent display (FL) dimmer or brighter.

22 INPUT ATT
Use to attenuate (lower) the level of an analog input signal to prevent distortion.

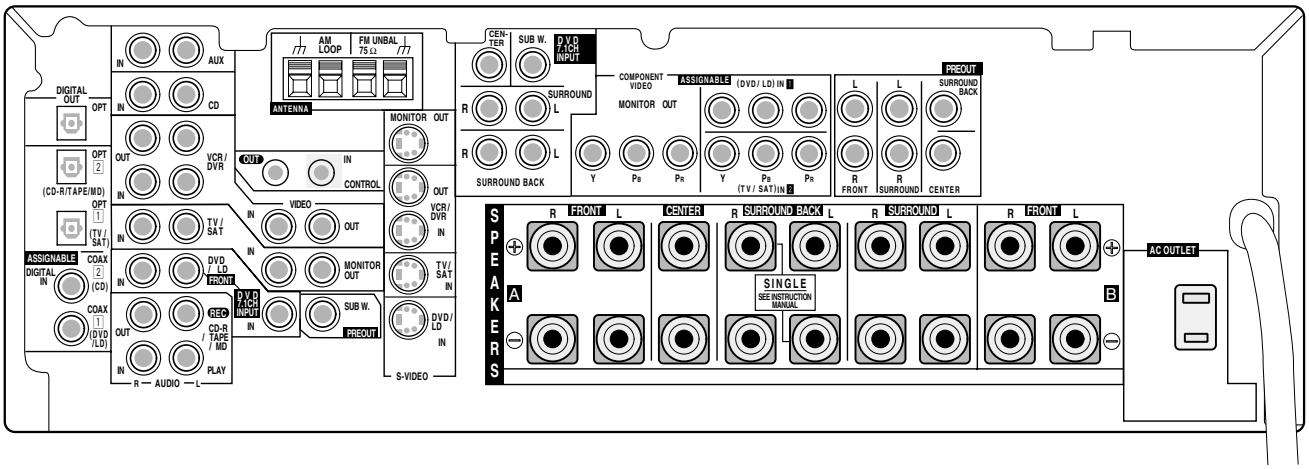
23 MPX
Press to receive a radio broadcast in mono.

24 BAND
Switches between AM and FM radio bands.

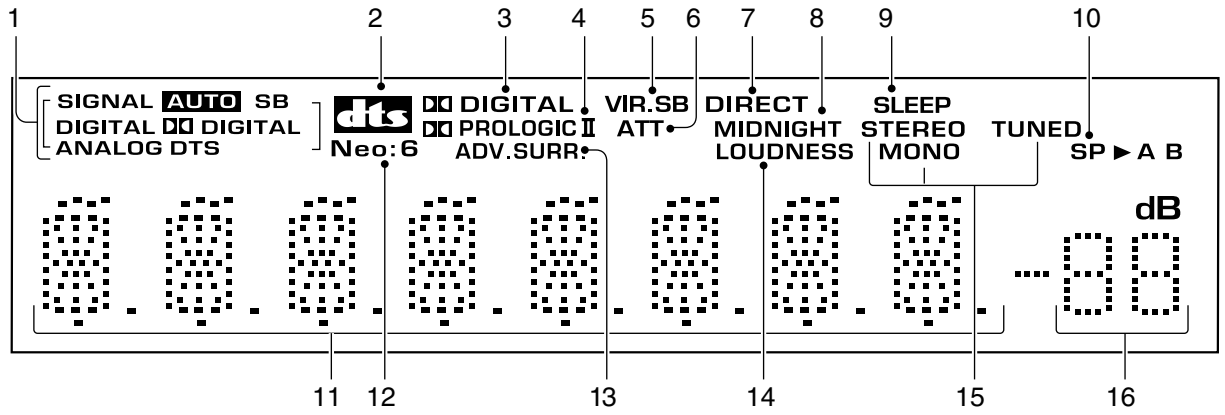
25 CLASS
Switches between the three banks (classes) of station presets.

26 TUNER EDIT
Press to memorize and name a station for recall.

Rear panel



Display



1 SIGNAL SELECT indicators
Lights to indicate the type of input signal assigned for the current component:

AUTO
Lights when AUTO signal select is on.

SB
Depending on the source, this lights when a signal with surround back channel encoding is detected.

DIGITAL
Lights when a digital audio signal is detected.

DIGITAL
Lights when a Dolby Digital encoded signal is detected.

ANALOG
Lights when an analog signal is detected.

DTS
Lights when a source with DTS encoded audio signals is detected.

2 DTS
When the STANDARD mode of the receiver is on, this lights to indicate decoding of a DTS signal.

3 DIGITAL
When the STANDARD mode of the receiver is on, this lights to indicate decoding of a Dolby Digital signal.

4 PRO LOGIC II
When the (STANDARD) Pro Logic II mode of the receiver is on, this lights to indicate Pro Logic II decoding.

5 VIR.SB
Lights during Virtual surround back processing.

6 ATT
Lights when INPUT ATT is used to attenuate (reduce) the level of the analog input signal.

7 DIRECT
Lights when source direct playback is in use. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

8 MIDNIGHT
Lights during Midnight listening.

9 SLEEP
Lights when the receiver is in sleep mode.

10 Speaker indicator
Shows the speaker system currently in use.

11 Character display

12 Neo:6
When the (STANDARD) NEO:6 mode of the receiver is on, this lights to indicate NEO:6 processing.

13 ADV.SURR. (Advanced Surround)
Lights when one of the Advanced Surround modes has been selected.

14 LOUDNESS
Lights when LOUDNESShas been selected.

15 TUNER indicators

STEREO
Lights when a stereo FM broadcast is being received in auto stereo mode.

MONO
Lights when the mono mode is set using the MPX button.

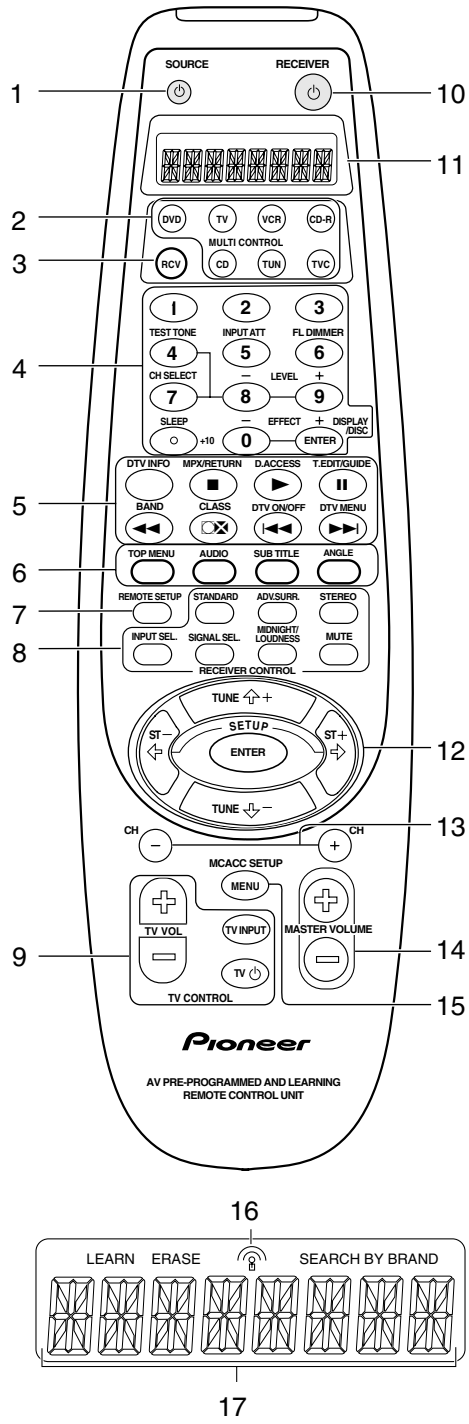
TUNED
Lights when a broadcast is being received.

16 Master volume level
Shows the overall volume level.---dB indicates the minimum level, and - 0 dB indicates the maximum level.

Depending on your level settings for each channel, the maximum volume can range between –10 dB and –0 dB.

Remote control

VSX-D912



1 ⏻ SOURCE
Press to turn on/off other components connected to the receiver.

2 MULTI CONTROL buttons
Press to select control of other components (see Controlling the rest of your system).

3 RCV
Switches the remote to controls the receiver (used to select the features above the number buttons. (ex. INPUT ATT, FL DIMMER). Also use this button to set up surround sound.

4 Number buttons/Receiver controls/ ENTER buttons
Use the number buttons to directly select a radio frequency or the tracks on a CD, DVD, etc.

Press the RCV button first to access the functions above the number buttons. The display flashes when it isn't possible to use a function.

The following (except DISPLAY/DISC) are accessed by pressing RCV:

TEST TONE
Sounds the test tone when setting up the surround sound of the receiver.

INPUT ATT
Attenuates (lowers) the level of an analog input signal to prevent distortion.

FL DIMMER
Dims or brightens the display.

CH SELECT
Selects a speaker when setting up the surround sound of the receiver.

LEVEL +/–
Adjusts the levels of the surround sound of the receiver.

EFFECT +/– buttons
Adds or subtracts the amount of effect with different advanced surround modes.

SLEEP
Use to put the receiver in sleep mode and select the amount of time before the receiver turns off.

DISPLAY/DISC (ENTER)
The button's use depends on the component selected. It can be used to enter commands for TV or DTV, and can also be used to select a disc in a multi-CD player. It can also be used to switch the display between the station preset name and the frequency for the tuner.

5 Component/Tuner control buttons
The main buttons (►, ■, etc.) are used to control a component after you have selected it using the MULTI CONTROL buttons. The tuner/DTV controls above these buttons can be accessed after you have selected the corresponding MULTI CONTROL button (TUN or TV (when connected to DTV)).

DTV INFO
Use to bring up information screens on a digital TV.

MPX/RETURN
Switches between stereo and mono reception of FM broadcasts. If the signal is weak then switching to mono will improve the sound quality . Also selects closed-captioning on DTVs.

D. ACCESS
After pressing, you can access a radio station directly using the number buttons.

T. EDIT/GUIDE
Press to memorize and name a station for recall using the STATION +/– buttons. Also displays the guides on a digital TV.

BAND
Switches between the tuner AM and FM bands.

CLASS
Switches between the three banks (classes) of radio station presets.

DTV ON/OFF
Switches a digital TV on/off.

DTV MENU
Displays menus on a digital TV.

6 DVD controls (Press DVD first to access)
These controls will also function as DTV controls, depending on the component you've selected.

TOP MENU
Displays the disc 'top' menu of a DVD.

AUDIO
Changes the audio language or channel.

SUBTITLE
Displays/changes the subtitles included in multilingual DVD-Video discs.

ANGLE
Switches camera angles on discs with multi-angle scenes.

7 REMOTE SETUP
Press this button to set up the remote control to control other components.

8 RECEIVER CONTROL buttons

STANDARD
Press for Standard decoding and to switch between the various Pro Logic II and Neo:6 options.

ADV. SURR.
Use to switch between the various surround modes.

STEREO
Switches between direct and stereo playback. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

INPUT SEL.
Use to select the input source.

SIGNAL SEL.
Use to select between an input signal.

MIDNIGHT/LOUDNESS
Switches to Midnight or Loudness listening.

MUTE
Mutes the sound (or restores the sound if it has been muted).

9 TV CONTROL buttons
These buttons are dedicated to control the TV assigned to the TVC button. Thus if you only have one TV to hook up to this system assign it to the TVC MULTI CONTROL button. If you have two TVs, assign the main TV to the TVC button.

TV VOL +/–
Use to adjust the volume on your TV.

TV INPUT
Use select the TV function.

TV ⏻
Use to turn on/off the power of the TV.

10 RECEIVER ⏻
This switches between standby and on for this receiver.

11 LCD display
This display shows preset codes and other information when transmitting control signals.

12 ⇦⇨⇩⇧ (TUNE/ST +/–) /ENTER
Use the arrow buttons when setting up your surround sound system. Also used to control DVD menus/options and for deck 1 of a double cassette deck player. Use the TUNE +/– buttons to find radio frequencies and use ST +/– to find preset stations.

13 CH +/–
Use to select channels when using a TV, VCR, DVR, etc. Also use to skip tracks backward or forward on CDs, DVDs, etc.

14 MASTER VOLUME +/–
Use to set the listening volume.

15 MCACC SETUP (Press RCV first to access)
Use to setup your speaker system using Multi-Channel Acoustic Calibration (MCACC).

MENU button
Displays the disc menu of DVD-Video discs. It also displays TV and DTV menus.

16 Transmit icon
Blinks to indicate the remote is transmitting control signals.

17 Character display (LCD)
The following commands are shown when you're setting the remote to control other components (see Controlling the rest of your system):

SETUP
Indicates the setup mode, from which you choose the options below.

DIR SET
See Direct function.

BRAND
See Searching for preset codes using brand names.

SEARCH
See Searching for preset codes.

LEARN
See Programming signals from other remote controls.

ERASE
See Erasing one of the remote control button settings.

RESET
See Clearing all the remote control settings.

READ ID
See Confirming preset codes.

VSX-D812